

APPENDIX 2

EPA Fact Sheet and Proposed Permit for SWRP NPDES Permit #NM0022250, June 25, 2004



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6

1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

JUN 25 2004

CERTIFIED MAIL: RETURN RECEIPT REQUESTED (7003 0500 0003 0871 0817)

REPLY TO: 6WQ-CA

Mr. Douglas Dailey, P.E.
Division Manager
City of Albuquerque
4201 Second Street SW
Albuquerque, NM 87105

Re: Application to Discharge to Waters of the United States
Permit No. NM0022250 - City of Albuquerque Southside Water Reclamation Plant

Dear Mr. Dailey:

Enclosed is a copy of a proposed National Pollutant Discharge Elimination System permit developed in accordance with the requirements of the Clean Water Act. Also enclosed are the fact sheet explaining the permit conditions and the public notice for this permit.

Any comments you wish to make may be submitted in writing by the due date stated in the public notice to Ms. Diane Smith at the above address. After all comments have been received, the Agency will make a final permit issuance decision. Subsequently, a copy of the final permit will be mailed to you. If you have any questions or would like to discuss this permit, please contact the permit writer, Maria Okpala, at (214) 665-3152.

Sincerely yours,

Troy C. Hill, P.E.
Acting Branch Chief
NPDES Permits Branch

Enclosures

cc w/permit copy:

New Mexico Environment Department
Pueblo of Isleta

**U.S. Environmental Protection Agency
Public Notice of Draft NPDES Permit(s)**

June 26, 2004

This is to give notice that the U.S. Environmental Protection Agency, Region 6, has formulated a Draft Permit for the following facility (facilities) under the National Pollutant Discharge Elimination System (NPDES). Development of the draft permit(s) was based on a preliminary staff review by EPA, Region 6, and consultation with the State of New Mexico. The State of New Mexico is currently reviewing the draft permit(s) for the purpose of certifying or denying certification of the permit(s). The permit(s) will become effective no sooner than 30 days after the close of the comment period unless:

- A. The State of New Mexico denies certification, or requests an extension for certification prior to that date.**
- B. Comments received by July 27, 2004, in accordance with §124.20, warrant a public notice of EPA's final permit decision.**
- C. A public hearing is held requiring delay of the effective date.**

EPA's contact person for submitting written comments, requesting information regarding the draft permit, and/or obtaining copies of the permit and the Statement of Basis or Fact Sheet is:

**Diane Smith
Customer Service Branch (6WQ-CA)
U.S. Environmental Protection Agency
1445 Ross Avenue
Dallas, Texas 75202-2733
(214) 665-7516**

EPA's comments and public hearing procedures may be found at 40 CFR 124.10 and 124.12 (48 Federal Register 14264, April 1, 1983, as amended at 49 Federal Register 38051, September 26, 1984). The comment period during which written comments on the draft permit may be submitted extends for 30 days from the date of this Notice. During the comment period, any interested person may request a Public Hearing by filing a written request which must state the issues to be raised. A public hearing will be held when EPA finds a significant degree of public interest.

EPA will notify the applicant and each person who has submitted comments or requested notice of the final permit decision. A final permit decision means a final decision to issue, deny, modify, revoke or reissue, or terminate a permit. Any person may request an Evidentiary Hearing on the Agency's final permit decision. However, the request must be submitted within 33 days of the date of the final permit decision and be in accordance with the requirements of 40 CFR 124.74. Any condition(s) contested in a request for an evidentiary hearing are granted on a New Source, New Discharger, or Recommencing Discharger, the applicant shall be without a permit.

Further information including the administrative record may be viewed at the above address between 8 a.m. and 4:30 p.m., Monday through Friday. It is recommended that you write or call to the contact above for an appointment, so the record(s) will be available at your convenience.

NPDES authorization to discharge to waters of the United States, Permit No. NM0022250 - City of Albuquerque Southside Water Reclamation Plant

The applicant's mailing address is:

City of Albuquerque
4201 Second Street SW
Albuquerque, NM 87105

The discharge from this municipal wastewater treatment plant is to receiving waters named Rio Grande, Segment No. 20.6.4.105 of the Middle Rio Grande Basin, a water of the United States. The designated uses of the receiving water according to the State of New Mexico "Standards for Interstate and Intrastate Surface Waters" are: Irrigation, Limited Warmwater Fishery, Livestock Watering, Wildlife Habitat, and Secondary Contact. The designated uses of the receiving water based on the Pueblo of Isleta Water Quality Standards are: Warmwater Fishery, Primary Contact Ceremonial, Primary Contact Recreational, Secondary Contact Recreational, Agricultural Water Supply and Industrial Water Supply. A fact sheet is available. The discharges from this municipal wastewater treatment facility is located at the following coordinates:

Latitude 35° 01' 04" N
Longitude 106° 40' 13" W

The sludge produced at the treatment plant is composted or disposed at the following location:

Albuquerque Range Restoration Area
3613 NM State Rd 528 NW
Rio Rancho, New Mexico, 87124.

NPDES PERMIT NO. NM0022250

FACT SHEET

FOR THE DRAFT NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT TO DISCHARGE TO WATERS OF THE UNITED STATES

APPLICANT: City of Albuquerque
Southside Water Reclamation Plant
P.O. Box 1293
Albuquerque, NM 87110

ISSUING OFFICE: U.S. Environmental Protection Agency
Region 6
1445 Ross Avenue
Dallas, Texas 75202-2733

PREPARED BY: Maria Okpala
Environmental Engineer
NPDES Permits Branch (6WQ-P)
Water Quality Protection Division
VOICE: 214-665-3152
FAX: 214-665-2191
EMAIL: okpala.maria@epa.gov

PERMIT ACTION: Proposed reissuance of the current permit issued April 15, 1994,
with an effective date of June 1, 1994 and an expiration date of
May 31, 1998.

DATE PREPARED: April 30, 2004

PAGES: 27 (Text)

40CFR CITATIONS: Unless otherwise stated, citations to 40CFR refer to promulgated regulations listed at Title 40, Code of Federal Regulations, revised as of 7/1/02.

CERTIFICATION: The permit is in the process of certification by the State of New Mexico following regulations promulgated at 40CFR124.53. A draft permit and draft public notice will be sent to the District Engineer, Corps of Engineers; to the Regional Director of the U.S. Fish and Wildlife Service; and to the National Marine Fisheries Service prior to the publication of that notice.

FINAL DETERMINATION: The public notice describes the procedures for the formulation of final determinations.

I. PROPOSED CHANGES FROM PREVIOUS PERMIT

It is proposed that the current permit be reissued for a 5-year term, in accordance with EPA's "Basin Statewide Management Approach to permitting in New Mexico." The changes from the current permit with an effective date of June 1, 1994 and an expiration date of May 31, 1998 are:

- (A) Water quality-based effluent limitations were re-calculated based on a new 4Q3 low flow condition, zero low flow, and ambient concentration from STORET.
- (B) Effluent limitations and monitoring requirements for Aluminum, Arsenic, Boron, Mercury, Molybdenum, Total Inorganic Nitrogen, and Bis (2-ethylhexyl) Phthalate have been established in the proposed permit based on new information.
- (C) Effluent limitations for Silver have been replaced with monitoring requirements.
- (D) Pretreatment requirements have been revised.
- (E) Additional Pollution Prevention languages have been included in the proposed permit.
- (F) Annual summary of the data that results from whole effluent toxicity are required to be sent to the U.S. Fish and Wildlife Service.
- (G) Additional copies of all DMR's and Reports are required to be sent to the Pueblo of Isleta and the New Mexico Environment Department.
- (H) Spill notification requirements have been revised to include notification to the Pueblo of Isleta and the U.S. Fish and Wildlife Service.

II. APPLICANT ACTIVITY AND TREATMENT DESCRIPTION

Under the Standard Industrial Classification (SIC) Code(s) 4952, the applicant currently operates a municipal wastewater treatment plant. As described in the application, treatment consists of preliminary screening/grit removal via bar screens/vortex and aerated grit basins; primary sedimentation via clarifiers; biological treatment via activated sludge and biological nitrogen removal (nitrification and denitrification); secondary clarification, chlorination and dechlorination.

III. DISCHARGE LOCATION

As described in the application, the wastewater treatment plant is located at 4201 Second Street SW, in Albuquerque, Bernalillo County, New Mexico. The discharges are to the receiving water named Rio Grande, State of New Mexico Segment No.20.6.4.105, in the Middle Rio Grande Basin. Coordinates for the discharge location, Outfall 001 are:

Latitude 35° 01' 04" N, Longitude 106° 40' 13" W

The facility discharges approximately five miles upstream of the Pueblo of Isleta waters.

IV. RECEIVING WATER DESIGNATED USES

The designated uses of the receiving stream, Rio Grande Segment No. 20.6.4.105, according to the State of New Mexico's "Standards for Interstate and Intrastate Surface Waters" are:

- Irrigation
- Limited Warmwater Fishery
- Livestock Watering
- Wildlife Habitat
- Secondary Contact

The designated uses of the receiving stream, the Rio Grande, according to the Pueblo of Isleta Water Quality Standards (PIWQS), approved, passed, and adopted February 11, 1992 (amended March 18, 2002 Tribal Resolution 02-064), Section V.A are:

- Warmwater Fishery use
- Primary Contact Ceremonial use
- Primary Contact Recreational use
- Secondary Contact Recreational (use de-listed in the March 2002 proposed revisions)
- Agricultural Water Supply use
- Industrial Water Supply use

V. STREAM STANDARDS

General and Specific Standards for the State of New Mexico are provided in New Mexico's "Standards for Interstate and Intrastate Surface Waters" (NMWQS), 20.6.4 NMAC, as amended through October 11, 2002. The general and specific stream standards for the Pueblo of Isleta are provided in "Pueblo of Isleta Water Quality Standards" (PIWQS), enacted February 11, 1992, proposed revisions dated June 2001, amended March 18, 2002, Tribal Resolution 02-064.

VI. DISCHARGE DESCRIPTION

According to information provided in the permit application, the design capacity of the facility is 76 million gallons per day (MGD). The annual average flow from outfall 001 is about 52.7 MGD. EPA has utilized the following sources of the facility's effluent data to evaluate the discharge from Outfall 001:

1. NPDES Permit Application Forms dated July 31, 2003, additional application information dated August 22, 2003.
2. City of Albuquerque Pretreatment Reports

Table 1, below, includes effluent characterization data utilized in the permit computations:

Table 1

Parameter	Concentration ug/l	Parameter	Concentration ug/l
Aluminum T ^{1,2}	43.21	Molybdenum T ²	12.85
Arsenic T ¹	5.79	Nickel T ¹	9.63
Arsenic D ³	1.87	Nickel D ³	1.57
Boron T ^{1,2}	374.99	Zinc T ¹	24.42
Chlorine Residual T (Mg/l) ¹	0.07 Max.	Zinc D ³	3.3
Chloroform ¹	1.875	Acetone ²	18.77
Chromium T ¹	2.45	Bis(2-ethylhexyl) phthalate ¹	8.1 < MQL
Chromium D ³	0.41	Bromodichloromethane ²	1.81 < MQL
Fluoride T ^{1,2}	1.46	2-butanone MEK ²	6.02
Mercury T ²	0.018	Toluene ¹	2.35 < MQL
Nitrate plus Nitrite Nitrogen (mg/l) ¹	5.4	Total Trihalomethanes ²	5.93
Total Residual Chlorine ¹	70	Ethyl Benzene ¹	0.6

Effluent Data Sources:¹ NPDES Permit Application² Pretreatment data³ Calculated value

VII. INDUSTRIAL WASTEWATER CONTRIBUTIONS

The permittee operates an EPA approved industrial pretreatment program. The program was approved on September 21, 1985 and modified on March 24, 1997. Specific language addressing pretreatment requirements is included in Part II of the permit.

However, the City will have to either confirm that their current Technically Based Local Limits are still protective, or do a completely new Technically Based Local Limits study within 12 months from the effective date of the permit.

VIII. SLUDGE MANAGEMENT AND DISPOSAL

Sludge produced at this facility is treated by anaerobic digestion followed by centrifugation. Five percent of the sludge produced at the treatment plant meets the ceiling and pollutant concentrations, Class A pathogen requirements and Option 1 vector attraction reduction. Eighty-eight percent of the sludge is land applied at Albuquerque Range Restoration Area, located at 3613 NM State Rd 528 NW, Rio Rancho, New Mexico, 87124. And, the rest of seven percent is placed on a City owned surface disposal site.

IX. TENTATIVE DETERMINATION

On the basis of preliminary staff review and after consultation with the State of New Mexico, the Environmental Protection Agency has made a tentative determination to reissue a permit for the discharge described in the application.

X. PROPOSED PERMIT CONDITIONS**STREAM FLOW**

There is no guaranteed minimum flow or a seasonal low flow in the proposed permit. There was a guaranteed minimum flow in the previous permit. A 10-year flow agreement between the City of Albuquerque and the Middle Rio Grande Conservancy District, which was signed on March 10, 1992 expired in 2002. The EPA understands that the seasonal critical low flow approach is authorized under the NM Water Quality Standards at 20.6.4.10, however, EPA has consistently applied annual 4Q3 to all dischargers. As a result, the proposed permit does not have seasonal low flows, nor a guaranteed flow. The State of New Mexico provided the low flow of 68 cfs in an email dated February 19, 2004. The EPA also carried over the 0 cfs low flow in the previous permit to the proposed permit because of the drought conditions in the Middle Rio Grande. In addition, the potential exist for flow in the Middle Rio Grande to fall below the critical low flow of 68 cfs during the permit term. As a result, the historical low flow of 0 cfs is retained in the proposed permit, but will only be implemented if the flow in the middle Rio Grande falls below the critical low flow of 68 cfs.

OUTFALL 001: 76 MGD

The permit proposes to authorize discharges from outfall 001. Such discharges are to be limited and monitored by the permittee as outlined in Tables 2, 3, 4, and 5, below.

The applicable effluent limitations which are based on the flow of the receiving stream (the Rio Grande) are as follows:

If the daily minimum flow of the Rio Grande is equal to or greater than the low flow of 68 CFS, the applicable effluent limits are those shown in Table 2.

If the daily minimum flow for the Rio Grande falls below the low flow of 68 CFS, the applicable effluent limits are those shown in Table 3, which reflects a low flow of 0.0 CFS.

In addition, if the 2002 Pueblo of Isleta Water Quality Standards is approved by EPA, the City shall, within three years of receiving the approval notice, comply with the limits set forth in Tables 4 or 5, as appropriate. See also Part 1.B of the proposed permit.

Table 2
River Low Flow = 68 CFS, With NMED Standards and 1992 Pueblo of Isleta Standards

Effluent Characteristics	Discharge Limitations			Daily Max Report(mgd)
	kg/day (lbs/day) 30-day Avg	Other Units (Specify) 30-day Avg		
Flow- Discharge	N/A	Report(mgd)	7-day Avg N/A	
Flow - Rio Grande	N/A	N/A	N/A	Report(mgd)
Carbonaceous Biochemical Oxygen Demand (5-day)	4313 (9508)	15 mg/l	22.5 mg/l	N/A
Total Suspended Solids	8643 (19015)	30 mg/l	45 mg/l	N/A
Dissolved Oxygen (Min.)	N/A	4.0 mg/l	N/A	N/A
Fecal Coliform Bacteria (Colonies/100 ml)	N/A	100	N/A	200
Total Aluminum**	Report	Report	N/A	Report
Total Ammonia	288 (634)	1 mg/l	1.5 mg/l	N/A
Total Arsenic **	0.0034(0.0074)	0.0117 ug/l	N/A	0.0175 ug/l
Total Mercury **	0.003 (0.008)	0.013 ug/l	N/A	0.019 ug/l
Total Molybdenum **	2.65 (5.84)	9.21 ug/l	N/A	13.81 ug/l
Nitrate **	3450(7606)	12 mg/l	N/A	12 mg/l
Total Silver **	Report	Report	N/A	Report
Whole Effluent Lethality (7-Day NOEC)	N/A	63%	63%	N/A
Ceriodaphnia dubia		Report	Report	
Pimephales promelas		Report	Report	

Table 3
0 CFS Low Flow With 1992 Pueblo of Isleta Standards

<u>Effluent Characteristics</u>	<u>Discharge Limitations</u>			
	kg/day (lbs/day) 30-day Avg	Other Units (Specify) 30-day Avg		7-day Avg
Flow- Discharge	N/A	Report(mgd)		N/A
Flow - Rio Grande	N/A	N/A		N/A
Carbonaceous Biochemical Oxygen Demand (5-day)	2300 (5071)	8 mg/l		12 mg/l
Total Suspended Solids	8643(19015)	30 mg/l		45 mg/l
Dissolved Oxygen(Min.)	N/A	4.0 mg/l		N/A
Fecal Coliform Bacteria (Colonies/100 ml)	N/A	100		N/A
Total Aluminum**	Report	Report		N/A
Total Ammonia	288 (634)	1 mg/l		1.5 mg/l
Total Arsenic**	0.0034(0.0074)	0.0117 ug/l		N/A
Total Boron **	143.75(316.92)	500 ug/l		N/A
Total Mercury **	0.0023(0.0051)	0.008 ug/l		N/A
Total Molybdenum **	1.92 (4.23)	6.67 ug/l		N/A
Nitrate **	2300 (5071)	8 mg/l		N/A
Total Silver**	Report	Report		N/A
Whole Effluent Lethality (7-Day NOEC)	N/A	100%		100%
<u>Ceriodaphnia dubia</u>		Report		Report
<u>Pimephales promelas</u>		Report		Report

Table 4

River Low Flow = 68 CFS, With NMED Standards and 2002 Pueblo of Isleta Standards

Effluent Characteristics	Discharge Limitations			
	kg/day (lbs/day)	Other Units (Specify)		
	30-day Avg	30-day Avg	7-day Avg	Daily Max
Flow- Discharge	N/A	Report(mgd)	N/A	Report(mgd)
Flow - Rio Grande	N/A	N/A	N/A	Report(mgd)
Carbonaceous Biochemical Oxygen Demand (5-day)	4313 (9508)	15 mg/l	22.5 mg/l	N/A
Total Suspended Solids	8643 (19015)	30 mg/l	45 mg/l	N/A
Dissolved Oxygen (Min.)	N/A	4 mg/l	N/A	N/A
Fecal Coliform Bacteria (Colonies/100 ml)	N/A	100	N/A	200
Total Aluminum **	Report	Report	N/A	Report
Total Ammonia	359 (792)	1.25 mg/l	1.9 mg/l	N/A
Total Arsenic **	Report	Report	N/A	Report
Bis (2-ethylhexyl) Phthalate**	2.8 (6.17)	9.74 ug/l	N/A	14.61 ug/l
Total Inorganic Nitrogen **	3.025(6.67)	10.52 ug/l	N/A	15.77 ug/l
Total Mercury **	0.003 (0.008)	0.013 ug/l	N/A	0.019 ug/l
Total Molybdenum **	2.65 (5.84)	9.21 ug/l	N/A	13.81 ug/l
Total Silver **	Report	Report	N/A	Report
Whole Effluent Lethality (7-Day NOEC)	N/A	63%	63%	N/A
<u>Ceriodaphnia dubia</u>		Report	Report	
<u>Pimephales promelas</u>		Report	Report	

Table 5
0 CFS Low Flow, With 2002 Pueblo of Isleta Standards

Effluent Characteristics	Discharge Limitations				
	kg/day (lbs/day) 30-day Avg	Other Units (Specify) 30-day Avg		7-day Avg	Daily Max
Flow- Discharge	N/A	Report(mgd)		N/A	Report(mgd)
Flow - Rio Grande	N/A	N/A		N/A	Report(mgd)
Carbonaceous Biochemical Oxygen Demand (5-day)	2300 (5071)	8 mg/l		12 mg/l	N/A
Total Suspended Solids	8643(19015)	30 mg/l		45 mg/l	N/A
Dissolved Oxygen(Min.)	N/A	4.0 mg/l			N/A
Fecal Coliform Bacteria (Colonies/100 ml)	N/A	100		N/A	200
Total Aluminum**	16.68 (36.76)	58 ug/l		N/A	87 ug/l
Total Ammonia	359 (792)	1.25 mg/l		1.9 mg/l	N/A
Total Arsenic**	Report	Report		N/A	Report
Bis (2-ethylhexyl) Phthalate**	2.8 (6.17)	9.74 ug/l		N/A	14.61 ug/l
Total Boron **	143.75(316.92)	500 ug/l		N/A	750 ug/l
Total Inorganic Nitrogen **	1.92 (4.23)	6.67 ug/l		N/A	10 mg/l
Total Mercury **	0.0023(0.0051)	0.008 ug/l		N/A	0.012 ug/l
Total Molybdenum **	1.92 (4.23)	6.67 ug/l		N/A	10 ug/l
Total Silver**	Report	Report		N/A	Report
Whole Effluent Lethality (7-Day NOEC)	N/A	100%		100%	N/A
Ceriodaphnia dubia		Report		Report	
Pimephales promelas		Report		Report	

In addition, the following limitations apply under all flow conditions:

Total Residual Chlorine. After dechlorination and prior to final disposal, the effluent shall contain NO MEASURABLE total residual chlorine (TRC) at any time.

pH. The pH shall not be less than 6.0 standard units or greater than 9.0 standard units.

Floatables. There shall be no discharge of floating solids or visible foam in other than trace amounts.

****If any individual analytical test result for, Aluminum, Arsenic, Boron, Cyanide, Mercury, Molybdenum, Nitrate, Bis(2- ethylhexyl phthalate) and Silver is less than the minimum quantification level (MQL) listed below, then a value of zero (0) may be used for that test result for the discharge monitoring report (DMR) calculations and reporting requirements.**

<u>Pollutant</u>	<u>MQL, µg/l</u>
Aluminum	100
Arsenic	10
Boron	100
Mercury	0.2
Molybdenum	30
Nitrate	100
Silver	2.0
Bis(2- ethylhexyl phthalate)	10

XI. DRAFT PERMIT RATIONALE

The following section sets forth the principal facts and the significant factual, legal, methodological, and policy questions considered in preparing the proposed permit. Also set forth are any calculations or other necessary explanations of the derivation of specific effluent limitations and conditions, including a citation to the applicable effluent limitation guideline or performance standard provisions as required under 40 CFR 122.44 and reasons why they are applicable or an explanation of how the alternate effluent limitations were developed.

A. REASON FOR PERMIT ACTION

The current permit was issued April 15, 1994 with an effective date of June 1, 1994, and an expiration date of May 31, 1998. The permit renewal application dated July 31, 2003 was received by EPA Region 6, on August 05, 2003, and additional permit application information dated August 22, 2003 was received by EPA, Region 6, on August 26, 2003. The expiration date of this permit is proposed to be 5 years from the permit effective date.

B. TECHNOLOGY-BASED VERSUS WATER QUALITY STANDARDS-BASED EFFLUENT LIMITATIONS AND CONDITIONS

Following regulations promulgated at 40CFR122.44(l)(2)(ii), the proposed permit limits are based on either technology-based effluent limits pursuant to 40CFR122.44(a) or on State water quality standards and requirements pursuant to 40CFR122.44(d), whichever are more stringent.

C. TECHNOLOGY-BASED EFFLUENT LIMITATIONS/CONDITIONS

1. GENERAL COMMENTS

Regulations promulgated at 40CFR122.44(a) require technology-based effluent limitations to be placed in NPDES permits based on effluent limitations guidelines where applicable, on BPJ (best professional judgment) in the absence of guidelines, or on a combination of the two.

2. EFFLUENT LIMITATIONS AND MONITORING FREQUENCIES

Technology-based effluent limitations on Total Suspended Solids for Outfall 001 are in accordance with "secondary treatment requirements" established at Title 40, Code of Federal Regulations (40 CFR), Part 133, sections 133.102(a) and 133.102(b). The limitations included in the proposed permit are as follows:

<u>Parameter</u>	<u>30-day Avg.</u>	<u>7-day Avg.</u>
	<u>mg/l</u>	<u>mg/l</u>
TSS	30	45

The Total 30-day average loadings for TSS are based on the design flows of 76 MGD as shown below:

$$\begin{aligned} 30 \text{ mg/l} * 8.34 \text{ lb/gal} * 76 \text{ MGD} &= 19,015 \text{ lb/day} \\ 19015 \text{ lb/day} \div 2.2 \text{ lb/kg} &= 8643 \text{ kg/day} \end{aligned}$$

Regulations require permits to establish monitoring requirements to yield data representative of the monitored activity [40CFR122.48(b)] and to assure compliance with permit limitations [40CFR122.44(i)(1)]. A monitoring frequency of once per day has been established in the proposed permit for TSS.

The BOD effluent limitations are replaced with the most stringent Water Quality-based Carbonaceous Biochemical Oxygen Demand (CBOD) as described below. CBOD was used in the previous permit because it is a more accurate test especially when there is an ammonia limit included in the permit.

D. WATER QUALITY-BASED EFFLUENT LIMITATIONS/CONDITIONS

1. GENERAL COMMENTS

Effluent limitations and/or conditions established in the proposed permit are in compliance with the State of New Mexico's Water Quality Standards (NMWQS) and with the Pueblo of Isleta Water Quality Standards (PIWQS). The limitations are also consistent with the applicable water quality management plan.

2. POST THIRD ROUND POLICY AND STRATEGY

Section 101 of the Clean Water Act (CWA) states that "...it is the national policy that the discharge of toxic pollutants in toxic amounts be prohibited..." To insure that the CWA's prohibitions on toxic discharges are met, EPA has issued a "Policy for the Development of Water Quality-Based Permit Limitations for Toxic Pollutants (49 FR 9016-9019, 3/9/84)." In support of the national policy, Region 6 adopted the "Policy for Post Third Round NPDES Permitting" and the "Post Third Round NPDES Permit Implementation Strategy" on October 1, 1992. The Regional policy and strategy are designed to insure that no source will be allowed to discharge any wastewater which (1) results in instream aquatic toxicity; (2) causes a violation of an applicable narrative or numerical State water quality standard resulting in nonconformance with the provisions of 40CFR122.44(d); (3) results in the endangerment of a drinking water supply; or (4) results in aquatic bioaccumulation which threatens human health.

3. IMPLEMENTATION

The Region is currently implementing its post third round policy in conformance with the Regional strategy. The NPDES permits contain technology-based effluent limitations reflecting the best controls available. Where these technology-based permit limits do not protect water quality or the designated uses, additional water quality-based effluent limitations and/or conditions are included in the NPDES permits. State narrative and numerical water quality standards are used in conjunction with EPA criteria and other available toxicity information to determine the adequacy of technology-based permit limits and the need for additional water quality-based controls.

4. STATE/TRIBAL WATER QUALITY NUMERICAL STANDARDS

a. GENERAL COMMENTS

40 CFR 122.(d) states: "No permit may be issued... when the imposition of conditions cannot ensure compliance with the applicable water quality requirements of all affected States."

Outfall 001 discharges approximately five miles upstream of the Pueblo of Isleta, a downstream State. As stated in the cover page of this Fact Sheet, the permit is in the process of certification by the State of New Mexico following regulations promulgated at 40 CFR 124.53. The permit must also ensure that the conditions in the permit are in compliance with water quality requirements for the Pueblo of Isleta, a downstream State. Where different standards apply for a particular parameter, the most stringent standard has been used to develop effluent limitations in order to protect for all applicable designated uses.

As stated in Section IV above, the designated uses of the receiving stream in accordance with the State of New Mexico water quality standards are: *Irrigation, Limited warmwater fishery, livestock watering, wildlife habitat, and secondary contact*. Designated uses in accordance with the Pueblo of Isleta water quality standards are: *Warmwater fishery, Primary contact ceremonial, Primary contact recreational, secondary contact recreational, Agricultural water supply, and Industrial water supply*.

Effluent limitations and/or conditions established in the draft permit are based on standards applicable to the designated uses for the receiving water. Summaries of the numerical

screenings performed to ensure compliance with New Mexico and Isleta water quality standards are included in Tables 6 through 11 below.

b. PERMIT ACTION

(1) WATER QUALITY-BASED LIMITS

Water quality numerical standards based effluent limitations for the following pollutants are established in the proposed permit: **CBOD5, Total Ammonia, Dissolved Oxygen, Nitrate, pH, Fecal Coliform, Total Residual Chlorine, Aluminum, Arsenic, Molybdenum, Mercury, Boron, Total Inorganic Nitrogen, and Bis (2-ethylhexyl) phthalate**. The following paragraphs will describe the basis for establishing these limits.

- a.) **Carbonaceous Biochemical Oxygen Demand (CBOD), Dissolved Oxygen, Total Ammonia, and Nitrate:** The City of Albuquerque Southside Water Reclamation Plant discharges to the Rio Grande approximately five miles upstream of the Pueblo of Isleta reservation. In order to maintain the NMWQS and the PIWQS, the QUAL2E v.3.13 was utilized to calculate effluent limitations for CBOD, total ammonia, dissolved oxygen, and nitrate. Final effluent limits for CBOD, and Dissolved Oxygen are based on both the NMWQS 20.6.4.900 E and the current Pueblo of Isleta Water Quality Standards Section IV.C.1. Final effluent limits for Total Ammonia are based on the current Isleta Water Quality Standards Section V.A.2.e. for un-ionized ammonia. Final effluent limitations for Nitrate are based on the current Isleta Pueblo Water Quality Standard IV.D.4. for nitrate. Variables used to calculate the effluent limitations for CBOD, Total Ammonia, Nitrate, and Dissolved Oxygen are outlined below.

For the current PIWQS and NMED Standards, the variables are:

Temperature = 25°C
pH = 8
Target Total $\text{NH}_3\text{-N}$ = 0.56 mg/l at Isleta Reservation Boundary
based on 0.03 mg/l un-ionized ammonia criteria
Target Nitrate = 10 mg/l at Isleta Reservation Boundary
New Mexico DO Standard = 4.0 mg/l
Pueblo of Isleta DO Standard = 5.0 mg/l

And for revised PIWQS and NMED Standards, the variables are:

Temperature = 25°C
pH = 8
New Mexico DO Standard = 4.0 mg/l
Pueblo of Isleta DO Standard = 5.0 mg/l
Total Ammonia = 1.24 mg/l

Nitrate: The 2002 revised PIWQS replaced Nitrate criteria of 10 mg/l with Total Inorganic Nitrogen of 10.0 mg/l for primary contact ceremonial use. The amount of total inorganic nitrogen equals the total amount of ammonia (NH_3), ammonium (NH_4), nitrate (NO_3), and nitrite (NO_2). In the previously issued permit, the seasonal nitrate limit at 16

MGD 4Q3 is 10 mg/l which equals to the criteria. However, the model run established a Nitrate limit of 12 mg/l at the 68 cfs low flow scenario. In addition, the proposed permit established 10.5 mg/l and 10 mg/l at the critical low flow of 68 cfs and 0 cfs respectively, as the limit for total inorganic nitrogen from the effective date of revised PIWQS.

CBOD and DO: Effluent limitations for these pollutants were calculated through 2004 surface water modeling performed by the EPA Region 6 Watershed Management Section. The calculated effluent limitations for CBOD and DO, based on current Standards are 15 mg/l and 4 mg/l respectively at the 68 cfs low flow. A decrease in the CBOD and increase in the DO when compared to the previous permit are based on a revised low flow of 68 cfs and the current Water Quality Standards. The revised low flow decreased from 252 cfs to 68 cfs. The DO limits predicted by the model based on the revised 2002 PIWQS is the same as that predicted by the 1993 model based on the 1992 PIWQS, at the zero low flow. Also, the CBOD limits predicted by the model based on the revised 2002 PIWQS is 8 mg/l and is about the same when compared to the 1993 model run. The CBOD limits for the 1993 model run at zero flow, from July 1 - October 31 is 9 mg/l, and from November 1 - June 30 is 10 mg/l.

Total Ammonia: Total Ammonia effluent limitations were calculated based on the 1992 adopted Pueblo of Isleta Water Quality Standards. NMAC 20.6.4.11 C requires compliance with total ammonia by meeting water quality standards set in 20.6.4.900 NMAC Subsection N or O, or by performing biomonitoring procedures set out in subsections D and E of 20.6.4.13 NMAC. The proposed permit also establishes biomonitoring requirements which are discussed below in Section XII. of this Fact Sheet. The 2004 model ran for total ammonia decreased from 2 mg/l to 1 mg/l when compared to the previous permit, as a result of the decreased low flow and the current Water Quality Standards. The total ammonia limit based on the 2002 revised Isleta standards is 1.25 mg/l. This is because, the total ammonia criteria set forth in the 2002 revised PIWQS are less stringent than the criteria adopted in the 1992 Pueblo of Isleta Standards and in 20.6.4 NMAC for warmwater fishery use.

The U.S. FWS stated in the Biological Opinions on the Rio Grande Water Project that

“At pH 8 and a water temperature of 25 °C, concentrations of ammonia as low as 3.1 mg/l are harmful to larval fathead minnow. The fathead minnow has been suggested as a surrogate to evaluate the effects of various chemicals on the silvery minnow.”

The ammonia criteria for warmwater fishery set forth in the NMWQS at pH 8 and 25 °C is 0.91 mg/l and the criteria in the 2002 revised PIWQS at the same ambient condition is about 1.24 mg/l. Either NMWQS or PIWQS is protective for the silvery minnow. Also, because the fathead minnow has been suggested as a surrogate to evaluate the effects of various chemicals on the silvery minnow, the establishment of biomonitoring requirements for fathead should be protective for silvery minnow and other aquatic life.

- b.) **pH:** PIWQS Sections IV.C.3 and V.A.2.d. establish criteria for pH at a range of 6.0 to 9.0 standard units. The State of New Mexico Standards for Interstate and Intrastate Surface Waters, 20.6.4.105 NMAC establishes pH limitations at a range of 6.6 to 9.0 standard units. The proposed permit establishes requirements for pH not less than 6.0 or greater than 9.0 standard units, consistent with both the 1985 State of New Mexico

Water Quality Management Plan and the PIWQS. These effluent limitations are consistent with those established in the current permit.

- c.) **Fecal Coliform:** PIWQS Section IV.D.1 establishes criteria for Fecal Coliform for a 30 day average (geometric mean) maximum of 100 colonies/ 100 ml and a single sample maximum of 200 colonies/ 100ml. The State of New Mexico Standards for Interstate and Intrastate Surface Waters, 20.6.4.105 NMAC, establishes limitations for Fecal Coliform 30 day average and a single sample maximum of 1,000 colonies/100 ml and 2000/100 ml respectively. However, under the conditions of the May 2002 Middle Rio Grande TMDL, the permittee will be required to meet segment specific fecal coliform standards after final treatment. The limits are 100 cfu/100 ml as 30-day geometric mean and a single sample maximum of 200 cfu/100 ml. Limitations on fecal coliform bacteria included in the proposed permit are consistent with the limitations developed in the Middle Rio Grande TMDL and the PIWQS, as stated in section XII.D.4.
- d.) **Total Residual Chlorine:** PIWQS Section IV.C.5 establishes criteria for a Total Residual Chlorine Maximum of 0.011 mg/l. The State of New Mexico Standards for Interstate and Intrastate Surface Waters, 20.6.4.900 NMAC establishes chronic criteria for Total Residual Chlorine at .011 mg/l. The proposed permit establishes requirements for Total Residual Chlorine in accordance with both PIWQS and NMWQS. These effluent limitations are consistent with those established in the current permit.
- e.) **Numeric Toxic Criteria:** Effluent limits for point sources must include limits necessary to meet water quality standards in accordance with the Clean Water Act, Section 301(b) and (c). Federal Regulations found at 40 CFR 122.4 (d) state that if a discharge poses the reasonable potential to cause an in-stream excursion above a water quality criterion, the permit must contain an effluent limit for that pollutant.

In accordance with Part II of the "Region 6 Implementation Guidance for State of New Mexico Standards for Interstate and Intrastate Streams" dated May 5, 1995, once applicable designated uses and water quality criteria for a receiving waterbody have been determined, the effluent must be characterized and the need for permit limits to control the discharge must be assessed. Further, there will be no acute toxicity within the mixing zone (i.e., acute standards apply at the point of discharge) and there will be no chronic toxicity at the edge of the mixing zone.

In making this assessment, the permitting authority must first determine if the discharge will result in an instream waste concentration (IWC) of regulated pollutants that exceed the specific water quality standards at their point of application in the receiving water body. To accomplish this assessment, an IWC is calculated for each pollutant detected in the effluent.

As stated in Section VI. of this Fact Sheet, EPA obtained effluent data from the City of Albuquerque Permit Application and the Pretreatment Reports. The parameters detected in the effluent are included in Table 1 above. EPA has utilized the 68 CFS and the 0 CFS low flows of the receiving water.

As shown in Tables 7 below, Albuquerque's discharges have a reasonable potential to exceed New Mexico water quality criteria for mercury and total residual chlorine. Arsenic, total residual chlorine, molybdenum, and mercury showed reasonable potential to exceed the 1992 Pueblo of Isleta water quality criteria, as shown in Tables 8 below. Water quality

screening for Tables 7 and 8 were performed at a 4Q3 of 68 CFS. Furthermore, Arsenic, boron, total residual chlorine, mercury, and molybdenum showed reasonable potential to exceed the 1992 PIWQS at the zero low flow as shown in Table 9 below. In addition, Table 10 below showed reasonable potential to exceed total residual chlorine, mercury, molybdenum, and Bis (2-ethylhexyl) phthalate at 68 CFS in the 2002 PIWQS; while Table 11 showed a reasonable potential to exceed the 2002 PIWQS at the zero low flow for aluminum, boron, total residual chlorine, mercury, molybdenum, and Bis (2-ethylhexyl) phthalate. (For computations see spreadsheets included in the Appendix).

In order to meet all applicable designated uses and numeric standards, the most stringent limit calculated for each parameter was selected as the final effluent limit. Effluent limitations were computed based on the equations included in the NMWQS Implementation Plan. All metal limits are to be expressed as total recoverable metals per 40 CFR 122.45(c). In addition, according to the Pueblo of Isleta Implementation Plan, the dissolved metal Standards are applied as total without use of a translator mechanism. The effluent limit are calculated based on the dissolved Standards, but are expressed as "Total." However, the New Mexico toxic criteria for metals are expressed in dissolved values. Nonetheless, there is a 1:1 conversion of the dissolved numeric criteria to total numeric criteria, if a Dissolved to Total partition coefficient is not available, according to the "Implementation Guidance for State of New Mexico Standards for Interstate and Intrastate Streams."

The current permit required the City to perform a pollutant specific study. This study was performed by the City during the 1995 - 1996 time frame. The City showed that the average aluminum removal in the effluent was 84 % and performed river samples on different Rio Grande Stations. The City also showed that the chronic dissolved aquatic toxicity standard of 87 ug/l is not exceeded in either the City's effluent or in river samples whether upstream or downstream. The city concluded that a very high translation coefficient between total and dissolved forms exists for aluminum. EPA notes that the current permit contains effluent limitations for total aluminum at 0 and 16 MGD (25 cfs) low stream flow, and monitoring requirements at stream 4Q3 low flow and at higher guaranteed flow. The reported average aluminum concentration in the discharge does have reasonable potential to exceed the 2002 proposed Pueblo of Isleta standard at the zero low flow only. Hence, it is proposed that effluent limitations for total aluminum will be in effect only if the 2002 PIWQS is approved by EPA. In addition, the proposed permit contains the monitoring requirements in the 1992 PIWQS zero low flow, and the NMED'S 4Q3 of 68 cfs. This is because the permittee reported permit violations for aluminum at stream low flow conditions in 2002. Therefore, the proposed permit renewal establishes monitoring requirements for total aluminum. Because the monitoring only requirements is established at the updated 4Q3 low flow condition, it is not a backsliding in accordance with 40 CFR 122.62.

EPA notes that the current permit contains effluent limitations for Arsenic and Silver based on plant operations. These limitations were included as part of a 1994 agreement reached on the final permit among the various parties involved (City of Albuquerque, Pueblo of Isleta, NMED and EPA). Silver was reported as non-detect in the application as well as in the Discharge Monitoring Reports (DMRs). So, based on the new plant operations performance data, current silver limits are removed from the proposed permit. This permit limit change is based on the new data in accordance with 40 CFR 122.62. Therefore, it is in compliance with EPA's anti-backsliding policy. The proposed permit has monitoring requirements for silver to ensure the discharge does not contain detectable amount of silver.

Arsenic does not have a reasonable potential to exceed either the NMWQS, but does have potential to exceed the current human health criteria of 0.0175 ug/l established in the 1992 PIWQS and the proposed 2002 PIWQS. The ambient concentration of arsenic exceed the current Pueblo of Isleta water quality criteria. As a result, the water quality criteria is used as the effluent limitation. EPA may reassess the effluent limitations for arsenic included in the proposed permit if a new agreement is reached by the various parties involved. The permittee reported cyanide as non-detect in the permit application, but was not reported at the correct MQL of 10 ug/l. However, the permittee was asked to submit two additional test restwo recent effluent analysis submitted by the permittee, dated June 3, 2004 confirmed cyanide as being non-detect in the discharge. As a result, monitoring requirements for cyanide is removed in the proposed permit. The permittee also submitted additional data for mercury and molybdenum. A calculation of the water quality screening revealed that mercury showed reasonable potential to exceed the NMWQS at the 68 cfs, the 1992 PIWQS, and the 2002 PIWQS at both flows. In addition, molybdenum, showed reasonable potential to exceed both the 1992 and the 2002 PIWQS at both flows.

Summary of information utilized to perform the water quality screening is included in Table 6 below.

Table 6

Facility design flow:	76 MGD or 117.8 cfs (obtained from permit application)
Stream flow	The critical low flow of the river at the point of discharge, 68 cfs, was provided in an email from NMED to EPA dated February 19, 2004. The historical low of 0 CFS was also utilized . The gauge utilized to estimate the 4Q3 at the point of discharge is USGS gauge No. 0833000 Rio Grande at Albuquerque, New Mexico.
Facility effluent data	Obtained from the following sources: 1. NPDES Permit Application 2. City of Albuquerque Pretreatment Reports
Stream ambient data:	1. STORET Station MRG105005740 Rio Grande at Rio Bravo Bridge
Stream hardness:	143 mg/l obtained from STORET station mentioned above.
Stream Total Suspended Solids:	234 mg/l obtained from STORET station mentioned above.

Table 7
City of Albuquerque Water Quality Screening/ State of New Mexico Water Quality Standards

Parameter	Ambient Conc. Ug/l	Effluent Conc. Ug/l	Reasonable Potential Ug/l E/N*2.13			New Mexico Water Quality Criteria							
						IWC ug/l 4Q3= 68 CFS	IWC ug/l HH= 174 CFS	Aquatic Life		Human Health ug/l		Agricultural	
								Acute Ug/l	Chronic Ug/l			Irrigation Ug/l	Livestock/ Wildlife Ug/l
Aluminum (D)	73	43.21	92.04	83.07	N/A	750	87	N/A	5000	5000	No		
Arsenic D	2	1.87	3.98	3.26	2.80	340	150	24.2	100	200	No		
Boron (D)	ND	374.99	798.73	506.41	N/A	N/A	N/A	N/A	750	5000	No		
Chlorine Residual T	ND	70	149.1	94.53	N/A	19	11	N/A	N/A	11	Yes		
Chloroform	-	1.875	3.99	N/A	1.61	N/A	N/A	4700	N/A	N/A	No		
Chromium D HEX/TRI	ND	0.41	0.87	0.55	N/A	765.31	99.55	N/A	100	1000	No		
Fluoride	-	1.46	3.11	N/A	N/A	N/A	N/A	N/A	N/A	N/A	No		
Mercury T	ND	0.018	0.038	0.024	N/A	2.4	0.012	N/A	N/A	0.77	Yes		
Molybdenum D	3.4	12.85	27.37	18.60	N/A	N/A	N/A	N/A	1000	N/A	No		
Nickel D	ND	1.57	3.34	2.12	60.98	635.08	70.54	4600	N/A	N/A	No		
Zinc D	ND	3.3	7.03	4.46	62.47	159.01	160.31	69000	2000	25000	No		
Acetone	-	18.77	39.98	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
Toluene	-	2.35	5.01	N/A	2.02	N/A	N/A	200000	N/A	N/A	No		
Bis (2-ethylhexyl) phthalate	-	8.1	17.25	N/A	6.97	N/A	N/A	59	N/A	N/A	No		
Bromodichloromethane	-	1.81	3.86	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
2- butanone MEK	-	6.02	12.82	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
Ethyl Benzene	-	0.6	1.28	N/A	0.52	N/A	N/A	29000	N/A	N/A	No		
Total Trihalometanes	-	5.93	12.63	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		

Receiving stream hardness = 143 mg/l obtained from STORET station MRG105005740 Rio Grande at Rio Bravo Bridge
Receiving stream TSS = 234 mg/l obtained from STORET station MRG105005740 Rio Grande at Rio Bravo Bridge

Table 8
City of Albuquerque Water Quality Screening/ 1992 Pueblo of Isleta Water Quality Standards

Parameter	Ambient Conc. Ug/l	Effluent Conc. Ug/l	Reasonable Potential Ug/l E/I=2.13	Pueblo of Isleta Water Quality Criteria											Limits
				General Standards											
				IWC ug/l 4Q3=68 cfs	IWC ug/l HH=174 cfs	Aquatic Life		Human Health ug/l	WW Fishery	Prim. Cont. Ceram.	Sec. Cont. Rec.	Agricultural		Prim.con Rec.	
						Acute Ug/l	Chronic Ug/l					Irrig. Ug/l	Livest. Ug/l		
Aluminum (D)	73	43.21	92.04	85.07	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5000	5000	N/A	No
Arsenic (D)	2	1.87	3.98	3.26	2.80	360	190	0.0175	N/A	N/A	N/A	N/A	N/A	N/A	Yes
Boron (D)	ND	374.99	798.73	506.41	N/A	N/A	N/A	N/A	N/A	N/A	N/A	750	5000	N/A	No
Chlorine Residual T	ND	70	149.1	94.53	N/A	19	11	N/A	11	N/A	N/A	N/A	N/A	N/A	Yes
Chloroform	-	1.875	3.99	N/A	1.61	28900	1240	15.7	N/A	N/A	N/A	N/A	N/A	N/A	No
Chromium D HEX/TRI	ND	0.41	0.87	0.55	1.61	16/2541.04	11/302.88	3433 (TRI)	N/A	N/A	N/A	N/A	N/A	N/A	No
Fluoride	-	1.46	3.11	N/A	N/A	N/A	N/A	N/A	N/A	4000	N/A	1000	2000	N/A	No
Mercury T	ND	0.018	0.038	0.024	N/A	2.4	0.012	0.146	N/A	N/A	N/A	N/A	N/A	N/A	Yes
Molybdenum (D)	ND	12.85	27.37	18.60	N/A	N/A	N/A	N/A	N/A	N/A	N/A	10	N/A	N/A	Yes
Nickel D	ND	1.57	3.34	2.12	60.98	1085.59	233.63	100	N/A	N/A	N/A	N/A	N/A	N/A	No
Zinc D	ND	3.3	7.03	4.46	62.47	173.51	157.15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	No
Acetone	-	18.77	39.98	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Toluene	-	2.35	5.01	3.18	2.02	17500	-	424000	N/A	N/A	N/A	N/A	N/A	N/A	No
Bis (2-ethylhexyl) phthalate	-	8.1	17.25	N/A	6.97	N/A	N/A	50000	N/A	N/A	N/A	N/A	N/A	N/A	No
Bromodichloromethane	-	1.81	3.86	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2-butanone MEK	-	6.02	12.82	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Ethyl Benzene	-	0.6	1.28	0.81	0.52	32000	-	3280	N/A	N/A	N/A	N/A	N/A	N/A	No
Total Trihalomethanes	-	5.93	12.63	1.21	N/A	N/A	N/A	N/A	N/A	100	N/A	N/A	N/A	N/A	No

Receiving stream hardness = 143 mg/l obtained from STORET station MRG105005740 Rio Grande at Rio Bravo Bridge
 Receiving stream TSS = 234 mg/l obtained from STORET station MRG105005740 Rio Grande at Rio Bravo Bridge

Table 9
City of Albuquerque Water Quality Screening/ 1992 Pueblo of Isleta Water Quality Standards

Parameter	Ambient Conc. Ug/l	Effluent Conc. Ug/l	Reasonable Potential Ug/l E/P=2.13			Pueblo of Isleta Water Quality Criteria										Limits
						General Standards										
						IWC ug/l 4Q3= 0 cfs	IWC ug/l HH=174 cfs	Aquatic Life		Human Health ug/l	WW Fishery	Prim. Cont. Cerem.	Sec. Cont. Rec.	Agricultural		
				Acute Ug/l	Chronic Ug/l			Irrig. Ug/l	Livest. Ug/l							
Aluminum (D)	73	43.21	92.04	92.04	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5000	5000	N/A	No	
Arsenic (D)	2	1.87	3.98	3.26	2.80	360	190	0.0175	N/A	N/A	N/A	N/A	N/A	N/A	Yes	
Boron (D)	ND	374.99	798.73	798.73	N/A	N/A	N/A	N/A	N/A	N/A	N/A	750	5000	N/A	Yes	
Chlorine Residual (T)	ND	70	149.1	149.1	N/A	19	11	N/A	11	N/A	N/A	N/A	N/A	N/A	Yes	
Chloroform	-	1.875	3.99	3.99	1.61	28900	1240	15.7	N/A	N/A	N/A	N/A	N/A	N/A	No	
Chromium D HEX/TRI	ND	0.41	0.87	0.87	N/A	16/2341.23	11/278.11	3433 (TRI)	N/A	N/A	N/A	N/A	N/A	N/A	No	
Fluoride	-	1.46	3.11	3.11	N/A	N/A	N/A	N/A	N/A	4000	N/A	1000	2000	N/A	No	
Mercury T	ND	0.018	0.038	0.038	N/A	2.4	0.012	0.146	N/A	N/A	N/A	N/A	N/A	N/A	Yes	
Molybdenum D	ND	12.85	27.37	27.37	N/A	N/A	N/A	N/A	N/A	N/A	N/A	10	N/A	N/A	Yes	
Nickel D	ND	1.57	3.34	3.34	60.98	1931.06	214.67	100	N/A	N/A	N/A	N/A	N/A	N/A	No	
Zinc D		3.3	7.03	7.03	52.79	159.41	144.39	N/A	N/A	N/A	N/A	N/A	N/A	N/A	No	
Acetone	-	18.77	39.98	39.98	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Toluene	-	2.35	5.01	5.01	2.02	17500	-	424000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Bis (2-ethylhexyl) phthalate	-	8.1	17.25	17.25	6.97	N/A	N/A	50000	N/A	N/A	N/A	N/A	N/A	N/A	No	
Bromodichloromethane	-	1.81	3.86	3.86	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
2- butanone MEK	-	6.02	12.82	12.82	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Ethyl Benzene	-	0.6	1.28	1.28	0.52	32000	-	3280	N/A	N/A	N/A	N/A	N/A	N/A	No	
Total Trihalomethanes	-	5.93	12.63	12.63	N/A	N/A	N/A	N/A	N/A	100	N/A	N/A	N/A	N/A	No	

Receiving stream hardness = 143 mg/l obtained from STORET station MRG105005740 Rio Grande at Rio Bravo Bridge
 Receiving stream TSS = 234 mg/l obtained from STORET station MRG105005740 Rio Grande at Rio Bravo Bridge

Table 10
City of Albuquerque Water Quality Screening/ 2002 Proposed Pueblo of Isleta Water Quality Standard:

Parameter	Ambient Conc. Ug/l	Effluent Conc. Ug/l	Reasonable Potential Ug/l Eff*2.13			Pueblo of Isleta Water Quality Criteria										Limits
						General Standards										
						IWC ug/l 4Q3=68 cfs	IWC ug/l HH=174 cfs	Aquatic Life		Human Health ug/l	WW Fishery	Prim. Cont. Cerem.	Sec. Cont. Rec.	Agricultural		
				Acute Ug/l	Chronic Ug/l			Irrig. Ug/l	Livest. Ug/l							
Aluminum (D)	73	43.21	92.04	85.07	N/A	750	87	N/A	N/A	N/A	N/A	5000	5000	N/A	No	
Arsenic (D)	2	1.87	3.98	3.26	2.80	340	150	4.2	N/A	N/A	N/A	N/A	200	N/A	No	
Boron (D)	ND	374.99	798.73	506.41	N/A	N/A	N/A	N/A	N/A	N/A	N/A	750	5000	N/A	No	
Chlorine Residual T	ND	70	149.1	94.53	N/A	19	11	N/A	11	N/A	N/A	N/A	N/A	N/A	Yes	
Chloroform	-	1.875	3.99	N/A	1.61	N/A	N/A	470	N/A	N/A	N/A	N/A	N/A	N/A	No	
Chromium D	ND	0.41	0.87	0.55	N/A	832.13	108.24	N/A	N/A	100	N/A	N/A	1000	N/A	No	
Fluoride	-	1.46	3.11	N/A	N/A	N/A	N/A	N/A	N/A	4000	N/A	1000	2000	N/A	No	
Mercury T	ND	0.018	0.038	0.024	N/A	2.4	0.012	0.051	N/A	2	N/A	N/A	1	N/A	Yes	
Molybdenum D	3.4	12.85	27.37	18.60	N/A	N/A	N/A	N/A	N/A	NA	N/A	10	N/A	N/A	Yes	
Nickel D	ND	1.57	3.34	2.12	60.98	693.82	77.06	4600	N/A	N/A	N/A	N/A	N/A	N/A	No	
Zinc D	ND	3.3	7.03	4.46	62.47	169.93	175.16	N/A	N/A	N/A	N/A	N/A	N/A	N/A	No	
Acetone	-	18.77	39.98	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Toluene	-	2.35	5.01	3.18	2.02	N/A	N/A	200000	N/A	1000	N/A	N/A	N/A	N/A	No	
Bis (2-ethylhexyl) phthalate	-	8.1	17.25	N/A	6.97	N/A	N/A	5.9	N/A	N/A	N/A	N/A	N/A	N/A	Yes	
Bromodichloromethane	-	1.81	3.86	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
2- butanone MEK	-	6.02	12.82	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Ethyl Benzene	-	0.6	1.28	0.81	0.52	N/A	N/A	29000	N/A	700	N/A	N/A	N/A	N/A	No	
Total Trihalomethanes	-	5.93	12.63	1.21	N/A	N/A	N/A	N/A	N/A	100	N/A	N/A	N/A	N/A	No	

Receiving stream hardness = 143 mg/l obtained from STORET station MRG105005740 Rio Grande at Rio Bravo Bridge

Receiving stream TSS = 234 mg/l obtained from STORET station MRG105005740 Rio Grande at Rio Bravo Bridge

Parameter	Ambient Conc. Ug/l	Effluent Conc. Ug/l	Reasonable Potential Ug/l E/P=2.13	Pueblo of Isleta Water Quality Criteria											Limits
				General Standards											
				IWC ug/l 4Q3= 0 cfs	IWC ug/l HH=174 cfs	Aquatic Life		Human Health ug/l	WW Fishery	Prim. Conl. Cerem.	Sec. Conl. Rec.	Agricultural		Prim.con Rec.	
						Acute Ug/l	Chronic Ug/l					Irrig. Ug/l	Livest. Ug/l		
Ethyl Benzene	-	0.6	1.28	1.28	0.52	N/A	N/A	29000	N/A	700	N/A	N/A	N/A	N/A	No
Total Trihalomethanes	-	5.93	12.63	12.63	N/A	N/A	N/A	N/A	N/A	100	N/A	N/A	N/A	N/A	No

Receiving stream hardness = 143 mg/l obtained from STORET station MRG105005740 Rio Grande at Rio Bravo Bridge

Receiving stream TSS = 234 mg/l obtained from STORET station MRG105005740 Rio Grande at Rio Bravo Bridge

(2) SCHEDULE OF COMPLIANCE

Following regulations listed at 40CFR122.47, the proposed permit establishes a schedule of compliance to the attainment of effluent limitations for total boron no later than three years from the effective date of the permit; total aluminum, total boron, Bis (2-ethylhexyl) Phthalate, and total inorganic nitrogen at Final Outfall(s) 001 no later than three years from the effective date of the 2002 revised PIWQS. The schedule of compliance and interim requirements are located at Part I.B of the proposed permit.

(3) MONITORING FREQUENCIES FOR LIMITED PARAMETERS

Regulations require permits to establish monitoring requirements to yield data representative of the monitored activity [40CFR122.48(b)] and to assure compliance with permit limitations [40CFR122.44(i)(1)].

The proposed permit establishes a monitoring frequency of once per week for the water quality numerical standards-based effluent limits established for total aluminum, arsenic, mercury, boron, molybdenum, Total Inorganic Nitrogen, and bis (2-ethylhexyl) phthalate beginning on the effective date of the permit. Also total silver and nitrate are to be monitored weekly. CBOD5, total ammonia, TSS, Dissolved Oxygen, fecal Coliform, and total residual chlorine are to be monitored daily.

XII. WHOLE EFFLUENT TOXICITY LIMITATIONS**a. GENERAL**

EPA has determined that there may be pollutants in the effluent which have the reasonable potential to cause, or contribute to an instream excursion above the narrative criterion within the applicable State water quality standards in violation of Section 101(a)(3) of the Clean Water Act. In addition, EPA is required to include conditions as necessary to achieve the States' water quality standards as established under Section 303 of the Clean Water Act. The State has established narrative criteria which, in part, state that:

"Surface waters of the State shall be free of toxic pollutants from other than natural causes in amounts, concentrations or combinations which affect the propagation of fish or which are toxic to humans, livestock or other animals, fish or other aquatic organisms;..."
(NMWQS 20.6.4.12 F.)

The Implementation Guidance for NM Standards state that: "Biomonitoring requirements will be applied to all major dischargers and those minor dischargers with known or potential problems to cause or contribute to exceedances of applicable [NM Standards] numeric or narrative water

quality criteria in waters with existing or designated fishery uses" (Section VI. Narrative Toxics Implementation).

b. PERMIT ACTION

(1) EFFLUENT LIMITATIONS AND/OR CONDITIONS

The draft permit establishes whole effluent lethality effluent limitations beginning on the effective date of the permit. This is consistent with current permit requirements.

(2) TESTING AND REPORTING REQUIREMENTS

The proposed permit establishes the following testing and reporting requirements, which are consistent with the current permit requirements:

TOXICITY TESTS

FREQUENCY

Chronic static renewal 7-day
survival and reproduction test
using Ceriodaphnia dubia
[Method 1002.0]

1/Quarter

Chronic static renewal 7-day
larval survival and growth test
using fathead minnow (Pimephales
promelas) [Method 1000.0]

1/Quarter

The critical dilution was calculated as $Q_c/(FQ_a + Q_e)$, where:

Q_e = facility flow (76MGD or 117.8 CFS)

Q_a = critical low flow of the receiving waters ($Q_{A1}=68$ CFS, $Q_{A2}=0.0$)

F = fraction of stream allowed for mixing (1.0)

Critical dilutions for the low flow(68 CFS) and historical low flow of 0.0 CFS, have been computed and will apply in accordance with the flow conditions of the river.

Critical Dilution 1 = $117.8 \text{ CFS} / [(1.0)(68) + 117.8]$

= 0.63

= 63%

Critical Dilution 2 = $117.8 \text{ CFS} / [(1.0)(0) + 117.8]$

= 1.0

= 100%

Toxicity tests shall be performed in accordance with protocols described in the latest revision of the "Short -Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, Third Edition, EPA/600/4-91/002, July 1994." The stipulated test species are appropriate to measure the toxicity of the effluent consistent with the requirements of the State water quality standards. The biomonitoring frequency has been established to provide data representative of the facility's discharge in accordance with regulations listed at 40CFR122.48 and to assure compliance with permit limitations following regulations listed at 40CFR122.44(i)(1).

Results of all dilutions as well as the associated chemical monitoring of pH, temperature, hardness, dissolved oxygen, conductivity, and alkalinity salinity shall be documented in a full report according to the test method publication mentioned in the previous paragraph. This full report need not be submitted unless requested by the Agency. However, the full report is to be retained for three (3) years following the provisions of Part III.C.3 of this permit.

(3) DILUTION SERIES

The proposed permit requires five (5) dilutions in addition to the control (0% effluent) to be used in the toxicity tests based on a 0.75 dilution series. These additional effluent concentrations shall be as follows:

For Low Flow conditions (68 CFS): 27%, 35%, 47%, 63%, 84%. The low-flow effluent concentration (critical low-flow dilution) is defined as 63% effluent.

For 0 CFS low flow: 32%, 42%, 56%, 75%, 100%. The low-flow effluent concentration is defined as 100% effluent.

XIII. ENDANGERED SPECIES

Five species in Bernalillo county are listed as Endangered or Threatened, according to the most recent species listing on the U.S. Fish and Wildlife Service web page. Those species include the Black-footed ferret (*Mustela nigripes*), Southwestern willow flycatcher (*Empidonax traillii extimus*) and Rio Grande silvery minnow (*Hybognathus amarus*) with critical habitat, are listed as Endangered. The Bald eagle (*Haliaeetus leucocephalus*) and the Mexican spotted owl (*Strix occidentalis lucida*) are listed as threatened species.

EPA Region 6 initiated formal consultation with the Fish and Wildlife Service in 2001, as required by the Forest Guardians settlement agreement. Commencement and subsequent completion of the consultation has been contingent on the development of this draft permit. EPA will not finalize the proposed permit until we have fulfilled our obligations under the Section 7(a)2 of the Endangered Species Act.

XIV. 303(d) LIST

The 2002-2004 Clean Water Act section 303(d) list for New Mexico indicates the uses not fully supported in the receiving water body stream segment 20.6.4.105 for the State of New Mexico are: Secondary Contact and Irrigation. The specific pollutant of concern is fecal coliform. The probable sources of impairment are Urban Runoff/Storm Sewers and Municipal Point Sources. Under the conditions of the May 2002 Middle Rio Grande TMDL, the permittee will be required to meet segment specific fecal coliform standards after final treatment. The limits are 100 cfu/100 ml as 30-day geometric mean and a single sample maximum of 200 cfu/100 ml. Limitations on fecal coliform bacteria included in the proposed permit are consistent with the limitations developed in the Middle Rio Grand TMDL and the PIWQS, as stated in section XII.D.4.

XV. SPILL NOTIFICATION

Part I.C. of the permit includes conditions for notification of spills to the US Fish and Wildlife Service office in Albuquerque and to the Pueblo of Isleta, in addition to the spill notification and reporting requirements to EPA. EPA solicits input on the appropriate procedures for the permittee to contact FWS and the Pueblo of Isleta in the event of a spill.

XVI. CONSIDERATION OF MONITORING FREQUENCY REDUCTION

Monitoring frequency reduction was considered. However, as a result of the excursion reported during the period 1994 - 2003 for aluminum, arsenic, chlorine residual, fecal coliform, silver, TSS, CBOD5, pH, DO, and total ammonia, the frequency established in the existing permits will remain the same. There were no violations reported for Nitrate. As a result, the monitoring frequency in the proposed permit for Nitrate is reduced from once a day to once a week.

XVII. ADMINISTRATIVE RECORD

The following section is a list of provisions and appropriate supporting references to the administrative record:

A. PERMIT(S)

NPDES Permit No. NM0022250 with an effective date of June 1, 1994, and an expiration date of May 31, 1998.

B. APPLICATION(S)

EPA NPDES Permit Application Standard Form dated July 31, 2003, and additional information dated August 22, 2003.

C. EPA/TRIBAL/STATE WATER QUALITY REFERENCES

"Pueblo of Isleta Water Quality Standards", enacted February 11, 1992, proposed revisions dated June 2001, amended March 18, 2002, Tribal Resolution 02-064.

Pueblo of Isleta Water Quality Standards Implementation Plan, 6/12/94

"State of New Mexico Standards for Interstate and Intrastate Surface Waters," (20.6.4 NMAC, effective 10/11/02)

Region 6 Implementation Guidance for State of New Mexico Standards for Interstate and Intrastate Stream, 5/5/95.

2002-2004 State of New Mexico § 303(d) List For Assessed River/Stream Reaches Requiring Total Maximum Daily Loads (TMDLs). June 2003.

Middle Rio Grande TMDL. May 2002.

D. MISCELLANEOUS REFERENCES

Policy for the Development of Water Quality-Based Permit Limitations for Toxic Pollutants [49FR9016-9019, 3/9/84]

EPA Region 6 "Policy for Post Third Round NPDES Permitting" and "Post Third Round NPDES Permit Implementation Strategy," 10/1/92

Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, EPA/600/4-91/002, July 1994.

National Toxics Rule, 57FR60848, 12/22/92

City of Albuquerque NPDES-NM0022250 (6/1/94) Part 2, Section A.5, Required Pollutant Specific Study April 27, 1997.

Region 6 Development of Minimum Quantification Levels

Biological and Conference Opinions on the Effects of Actions Associated with the Programmatic Biological Assessment of Bureau of Reclamation's Water and River Maintenance Operations, Army Corps of Engineers' Flood Control Operation, and Related Non-Federal Actions on the Middle Rio Grande, New Mexico, Cons. #2-22-03-F-0129, March 17, 2003.

PROPOSED PERMIT



Region 6
1445 Ross Avenue
Dallas, Texas 75202-2733

NPDES Permit No. **NM0022250**

AUTHORIZATION TO DISCHARGE UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Clean Water Act, as amended, (33 U.S.C. 1251 et. seq; the "Act"),

City of Albuquerque
P.O. Box 1293
Albuquerque, NM 87110

is authorized to discharge from a facility located at 4201 Second Street SW in the City of Albuquerque, County of Bernalillo, State of New Mexico,

to receiving waters named the Rio Grande in Segment 2105 of the Rio Grande Basin, from

Outfall 001: Latitude 35° 01' 04" N, Longitude 106° 40' 13" W

in accordance with effluent limitations, monitoring requirements and other conditions set forth in Parts I, II, III, and IV hereof.

This permit supersedes and replaces NPDES Permit No. NM0022250 issued June 1, 1994.

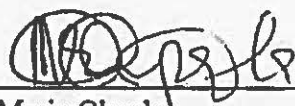
This permit shall become effective on

This permit and the authorization to discharge shall expire at midnight,

Issued on

Prepared by

Miguel I. Flores
Division Director
Water Quality Protection Division


Maria Okpala
Environmental Engineer
Permits Section (6WQ-PP)

SECTION A. LIMITATIONS AND MONITORING REQUIREMENTS.**Final Effluent limits - 76 MGD design flow.**

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from outfall serial number 001. Such discharges shall be limited by the permittee as included in Tables 1, 2, 3, and 4, as appropriate, depending on the flow of the receiving stream, the Rio Grande, as described below:

If the daily minimum flow of the Rio Grande is equal to or greater than the low flow of 68 CFS, the applicable effluent limits are those shown in Table 1.

If the daily minimum flow of the Rio Grande falls below the low flow of 68 CFS, the applicable effluent limits are those shown in Table 2, which reflects a low flow of 0.0 CFS.

In addition, if the 2002 Pueblo of Isleta Water Quality Standards is approved by EPA, the City shall, within three years of receiving the approval notice, comply with the limits set forth in Tables 3 or 4, as appropriate. See also Part 1.B of the proposed permit.

Table 1: Low Flow, 68 CFS, With NMED Standards and 1992 Pueblo of Isleta Standards				
Effluent Characteristic	Discharge Limit 30-day Average kg/day (Lbs/day)	Discharge Limit 30-day Average Concentration	Discharge Limit 7-day Average Concentration	Discharge Limit Daily Maximum (or as noted)
Flow (Discharge) STORET: 50050	Not Applicable	Monitor and Report ¹	Not Applicable	Monitor and Report ¹
Flow (Rio Grande) STORET: 00056	Not Applicable	Not Applicable	Not Applicable	Monitor and Report Minimum ²
Carbonaceous Biochemical Oxygen Demand (5-day) STORET: 00310	4,313 (9,508)	15 mg/l	22.5 mg/l	Not Applicable
Total Suspended Solids STORET: 00530	8,643 (19,015)	30 mg/l	45 mg/l	Not Applicable
Dissolved Oxygen (Minimum) STORET: 00300	Not Applicable	4 mg/l	Not Applicable	Not Applicable
Fecal Coliform (Colonies/100ml) STORET: 74055	Not Applicable	100	Not Applicable	200

Table 1: Low Flow, 68 GFS, With NMED Standards and 1992 Pueblo of Isleta Standards				
Total Aluminum, ³ STORET: 01105	Report	Report	Not Applicable	Report
Total Ammonia STORET: 00610	288 (634)	1 mg/l	1.5 mg/l	Not Applicable
Total Arsenic ³ STORET: 01002	0.0034(0.0074) ug/l	0.0117 ug/l	Not Applicable	0.0175 ug/l
Total Mercury ³ STORET: 71900	0.003 (0.008)	0.013 ug/l	Not Applicable	0.019 ug/l
Total Molybdenum ³ STORET: 01062	2.65 (5.84)	9.21 ug/l	Not Applicable	13.81 ug/l
Nitrate ³ STORET: 71850	3,450 (7,606)	12 mg/l	Not Applicable	12 mg/l
Total Silver ³ STORET: 01077	Report	Report	Not Applicable	Report
Whole Effluent Lethality (PCS 22414) (7-Day NOEC) ⁴ <u>Ceriodaphnia dubia</u> <u>Pimephales promelas</u>	Not Applicable	30-day Average Minimum ⁵ 63% Report Report	7-day Minimum 63% Report Report	Not Applicable

Table 1: Flow Data of 6 CFS With 1992 Federal Effluent Standards				
Effluent Characteristic	Discharge Limit 30-day Average Kg/day (Lbs/day)	Discharge Limit 30-day Average Concentration	Discharge Limit 7-day Average Concentration	Discharge Limit Daily Maximum (or as noted)
Flow (Discharge) STORET: 50050	Not Applicable	Monitor and Report ¹	Not Applicable	Monitor and Report ¹
Flow (Rio Grande) STORET: 00056	Not Applicable	Not Applicable	Not Applicable	Monitor and Report Minimum ²
Carbonaceous Biochemical Oxygen Demand (5-day) STORET: 00310	2,300 (5,071)	8 mg/l	12 mg/l	Not Applicable
Total Suspended Solids STORET: 00530	8,6435 (19,015)	30 mg/l	45 mg/l	Not Applicable
Dissolved Oxygen (Minimum) STORET: 00300	Not Applicable	4 mg/l	Not Applicable	Not Applicable
Fecal Coliform (Colonies/100ml) STORET: 74055	Not Applicable	100	Not Applicable	200
Total Aluminum, ³ STORET: 01105	Report	Report	Not Applicable	Report
Total Ammonia STORET: 00610	288 (634)	1 mg/l	1.5 mg/l	Not Applicable
Total Arsenic ³ STORET: 01002	0.0034(0.0074) ug/l	0.0117 µg/l	Not Applicable	0.0175 ug/l
Total Boron ^{3,6} STORET: 01022	143.75 (316.92)	500 ug/l	Not Applicable	750 ug/l
Total Mercury ³ STORET: 71900	0.0023(0.0051)	0.008 ug/l	Not Applicable	0.012 ug/l
Total Molybdenum ³ STORET: 01062	1.92 (4.23)	6.67 ug/l	Not Applicable	10 ug/l
Nitrate ³ STORET: 71850	2300(5071)	8 mg/l	Not Applicable	8 mg/l
Total Silver ³ STORET: 01077	Report	Report	Not Applicable	Report

Table 2: Low Flow of 0 CFS With 1992 Pueblo of Isleta Standards

Whole Effluent Lethality (PCS 22414)(7-Day NOEC) ⁴ <u>Ceriodaphnia dubia</u> <u>Pimephales promelas</u>	Not Applicable	30-day Minimum ⁵ 100% Report Report	7-day Minimum 100% Report Report	Not Applicable
--	----------------	---	---	----------------

Table 3: Low Flow, 68 CFS Within NMED Standards and 2002 Pueblo of Isleta

Effluent Characteristic	Discharge Limit 30-day Average Kg/day (Lbs/day)	Discharge Limit 30-day Average Concentration	Discharge Limit 7-day Average Concentration	Discharge Limit Daily Maximum (or as noted)
Flow (Discharge) STORET: 50050	Not Applicable	Monitor and Report ¹	Not Applicable	Monitor and Report ¹
Flow (Rio Grande) STORET: 00056	Not Applicable	Not Applicable	Not Applicable	Monitor and Report Minimum ²
Carbonaceous Biochemical Oxygen Demand (5-day) STORET: 00310	4,313 (9,508)	15 mg/l	22.5 mg/l	Not Applicable
Total Suspended Solids STORET: 00530	8,643 (19,015)	30 mg/l	45 mg/l	Not Applicable
Dissolved Oxygen (Minimum) STORET: 00300	Not Applicable	4 mg/l	Not Applicable	Not Applicable
Fecal Coliform (Colonies/100ml) STORET: 74055	Not Applicable	100	Not Applicable	200
Total Aluminum ³ STORET: 01105	Report	Report	Not Applicable	Report
Total Ammonia STORET: 00610	359 (792)	1.25 mg/l	1.9 mg/l	Not Applicable
Total Arsenic ³ STORET: 01002	Report	Report	Not Applicable	Report
Bis (2-ethylhexyl) Phthalate ³⁶ STORET: 39100	2.8 (6.17)	9.74 ug/l	Not Applicable	14.61 ug/l

Table 3: Low Flow, 68 CFS With NMED Standards and 2002 Pueblo of Isleta

Total Inorganic Nitrogen ^{3,6,7} STORET: 00640	3.025 (6.67)	10.52 ug/l	Not Applicable	15.77 mg/l
Total Mercury ^{3,6} STORET: 71900	0.003(0.008)	0.013 ug/l	Not Applicable	0.019 ug/l
Total Molybdenum ³ STORET: 01062	2.65 (5.84)	9.21 ug/l	Not Applicable	13.81 ug/l
Total Silver ³ STORET: 01077	Report	Report	Not Applicable	Report
Whole Effluent Lethality (PCS 22414) (7-Day NOEC) ⁴ <u>Ceriodaphnia dubia</u> <u>Pimephales promelas</u>	Not Applicable	30-day Average Minimum ⁵ 63% Report Report	7-day Minimum 63% Report Report	Not Applicable

DRAFT

Table 4: Low Flow of 0 CFS With 2002 Pueblo of Isleta Standards

Effluent Characteristic	Discharge Limit 30-day Average Kg/day (Lbs/day)	Discharge Limit 30-day Average Concentration	Discharge Limit 7-day Average Concentration	Discharge Limit Daily Maximum (or as noted)
Flow (Discharge) STORET: 50050	Not Applicable	Monitor and Report ¹	Not Applicable	Monitor and Report ¹
Flow (Rio Grande) STORET: 00056	Not Applicable	Not Applicable	Not Applicable	Monitor and Report Minimum ²
Carbonaceous Biochemical Oxygen Demand (5-day) STORET: 00310	2,300 (5,071)	8 mg/l	12 mg/l	Not Applicable
Total Suspended Solids STORET: 00530	8,643 (19,015)	30 mg/l	45 mg/l	Not Applicable
Dissolved Oxygen (Minimum) STORET: 00300	Not Applicable	4 mg/l	Not Applicable	Not Applicable
Fecal Coliform (Colonies/100ml) STORET: 74055	Not Applicable	100	Not Applicable	200

Table 4: Low Flow of 0 GFS With 2002 Pueblo of Isleta Standards

Total Aluminum ^{3,6} STORET: 01106	16.68 (36.76)	58 µg/l	Not Applicable	87 µg/l
Total Ammonia STORET: 00610	359 (792)	1.25 mg/l	1.9 mg/l	Not Applicable
Total Arsenic ³ STORET: 01002	Report	Report	Not Applicable	Report
Bis (2-ethylhexyl) Phthalate ^{3,6} STORET: 39100	2.8 (6.17)	9.74 ug/l	Not Applicable	14.61 ug/l
Total Boron ^{3,6} STORET: 01022	143.75 (316.92)	500 ug/l	Not Applicable	750 ug/l
Total Inorganic Nitrogen ^{3,6,7} STORET: 00640	1.92 (4.23)	6.67 ug/l	Not Applicable	10 mg/l
Total Mercury ³ STORET: 71900	0.0023(0.0051)	0.008 ug/l	Not Applicable	0.012 ug/l
Total Molybdenum ³ STORET: 01062	1.92 (4.23)	6.67 ug/l	Not Applicable	10 ug/l
Total Silver ³ STORET: 01077	Report	Report	Not Applicable	Report
Whole Effluent Lethality (PCS 22414)(7-Day NOEC) ⁴ <u>Ceriodaphnia dubia</u> <u>Pimephales promelas</u>	Not Applicable	30-day Minimum ⁵ 100% Report Report	7-day Minimum 100% Report Report	Not Applicable

Table 5: Monitoring Requirements
Applicable to Final Effluent Limitations in Tables 2, 3, 4, and 5

Effluent Characteristic	Measurement Frequency	Sample Type
Flow (Discharge) ¹ STORET: 50050	Continuous	Totalizing Meter
Flow (Rio Grande) ² STORET: 00056	Continuous	Record
Carbonaceous Biochemical Oxygen Demand (5-day) STORET: 00310	Once/Day	24-Hour Composite
Total Suspended Solids STORET: 00530	Once/Day	24-Hour Composite

Table 5: Monitoring Requirements Applicable to Final Effluent Limitations in Tables 2, 3, 4, and 5		
Dissolved Oxygen (Minimum) STORET: 00300	Once/Day	Grab
Fecal Coliform STORET: 74055	Once/Day	Grab
Total Aluminum ^{3,6} STORET: 01106	Once/Week	24-Hour Composite
Total Ammonia STORET: 00610	Once/Day	24-Hour Composite
Total Arsenic ³ STORET: 01002	Once/Week	24-Hour Composite
Bis (2-ethylhexyl) Phthalate ^{3,6} STORET: 39100	Once/Week	24-Hour Composite
Total Boron ^{3,6} STORET: 01022	Once/Week	24-Hour Composite
Total Inorganic Nitrogen ^{3,6,7} STORET: 00640	Once/Week	24-Hour Composite
Total Mercury ³ STORET: 71900	Once/Week	24-Hour Composite
Total Molybdenum ³ STORET: 01062	Once/Week	24-Hour Composite
Nitrate ³ STORET: 00620	Once/Week	24-Hour Composite
Total Silver ³ STORET: 01077	Once/Week	24-Hour Composite
Whole Effluent Lethality (PCS 22414)(7-day NOEC) ⁴ <u>Ceriodaphnia dubia</u> <u>Pimephales promelas</u>	Once/Quarter Once/Quarter	24-Hour Composite 24-Hour Composite

Note:

After dechlorination and prior to final disposal, the effluent shall contain NO MEASURABLE total residual chlorine (TRC) at any time. NO MEASURABLE will be defined as no detectable concentration of TRC as determined by any approved method established in 40 CFR 136. If during the term of this permit the minimum quantification limit for TRC becomes less than 0.011 mg/l, then 0.011 mg/l shall become the effluent limitation. The effluent limitation for TRC is the instantaneous maximum and cannot be averaged for reporting purposes. The maximum dechlorinated TRC shall be monitored daily by grab sample.

The pH shall not be less than 6.0 standard units or greater than 9.0 standard units and shall be monitored by grab samples collected at the frequency shown above for Total Suspended Solids.

There shall be no discharge of floating solids or visible foam in other than trace amounts.

Samples taken in compliance with the monitoring requirements specified above for Outfall 001 shall be taken at the discharge point from the final treatment unit prior to discharging into the receiving waterbody.

Footnotes

- ¹ Flow must be monitored and reported as million gallons per day (MGD).
- ² Flow must be monitored and reported as million gallons per day (MGD). Measurement shall be taken upstream of the discharge. See Part I, Section C, No. 8., Receiving Stream Flow Monitoring.
- ³ If any individual analytical test result for, Aluminum, Arsenic, Boron, Cyanide, Mercury, Molybdenum, Nitrate, Bis(2- ethylhexyl phthalate), and Silver is less than the minimum quantification level (MQL) listed below, then a value of zero (0) may be used for that test result for the discharge monitoring report (DMR) calculations and reporting requirements.

Pollutant	MQL (µg/l)
Aluminum	100
Arsenic	10
Boron	100
Mercury	0.2
Molybdenum	30
Nitrate	100
Silver	2.0
Bis(2- ethylhexyl phthalate)	10

- ⁴ Compliance with the Whole Effluent Toxicity limitations is required on the effective date of this permit. See PART II, Section B, Whole Effluent Toxicity Limits for additional WET monitoring and reporting conditions.

The NOEC is defined as the greatest effluent concentration which does not elicit lethality that is statistically different from the control (0% effluent) at the 95% confidence level.

~~The 30-day average minimum and the 7-day minimum lethality values shall not be less than the limits listed in the Tables.~~

- ⁵ If more than one valid test for a species was performed during the reporting period, the test NOECs will be averaged arithmetically and reported as the 30-day average minimum NOEC for that reporting period.
- ⁶ See Part I, Section B for compliance Schedules
- ⁷ shall be calculated as: Total Inorganic Nitrogen (TIN) = Ammonia (NH₃) + Ammonium (NH₄) + Nitrate (NO₃) + Nitrite (NO₂)

SECTION B. COMPLIANCE SCHEDULES.

1. **Compliance Schedule For Bis (2-ethylhexyl) Phthalate, Total Inorganic Nitrogen, and, Total Boron, and Total Aluminum.**
 - a. The permittee shall achieve compliance with the final effluent limitations specified for **Total Boron** with three years from the effective date of this permit; **Total Aluminum, Bis (2-ethylhexyl) Phthalate, Total Boron, and Total Inorganic Nitrogen** within three years from the effective date of the 2002 PIWQS.
 1. The permittee shall initiate and continue ongoing activities designed to achieve sustained compliance with final effluent limitations for **Total Boron** no later than three years from the effective date of this permit; **Total Aluminum, Bis (2-ethylhexyl) Phthalate, Total Boron, and Total Inorganic Nitrogen** no later than three (3) years from the effective date of the 2002 PIWQS.
 2. The permittee shall submit a progress report outlining the status of the activities during the months of January, April, July, and October until compliance is achieved.
 3. No later than 14 calendar days following the date for compliance for **Total Aluminum, Bis (2-ethylhexyl) Phthalate, Total Boron, and Total Inorganic Nitrogen**, the permittee shall submit a written notice of compliance or noncompliance.

SECTION C. MONITORING AND REPORTING.

1. The permittee shall effectively monitor the operation and efficiency of all treatment and control facilities and the quantity and quality of the treated discharge.
2. Monitoring information required shall be submitted on Discharge Monitoring Report Form EPA 3320-1 as required in Part III, D.4.
 - a. Reporting periods shall end on the last day of the month.
 - b. The first Discharge Monitoring Report(s) shall represent facility operations from the effective date of the permit through the last day of the month.
 - c. Thereafter, the permittee is required to make regular monthly reports as described above and shall submit those reports no later than the 15th day of the month following each reporting period. The annual sludge report required in Part IV of the permit is due on February 19 of each year and covers the previous calendar year from January 1 through December 31.
3. If any 7-day average, weekly average, or daily maximum value exceeds the effluent limitations specified in Part I.A, the permittee shall report the excursion in accordance with the requirements of Part III.D.
4. Any 30-day average, monthly average, 7-day average, weekly average, or daily maximum

value reported in the required Discharge Monitoring Report which is in excess of the effluent limitation specified in Part I.A shall constitute evidence of violation of such effluent limitation and of this permit.

5. Other measurements of oxygen demand (e.g., TOC and COD) may be substituted for five-day Biochemical Oxygen Demand (BOD5) or for five-day Carbonaceous Biochemical Oxygen Demand (CBOD5), as applicable, where the permittee can demonstrate long-term correlation of the method with BOD5 or CBOD5 values, as applicable. Details of the correlation procedures used must be submitted and prior approval granted by the permitting authority for this procedure to be acceptable. Data reported must also include evidence to show that the proper correlation continues to exist after approval.
6. The permittee shall report all overflows with the Discharge Monitoring Report submittal. These reports shall be summarized and reported in tabular format. The summaries shall include: the date, time, duration, location, estimated volume, and cause of the overflow; observed environmental impacts from the overflow; actions taken to address the overflow; and ultimate discharge location if not contained (e.g., storm sewer system, ditch, tributary). Overflows which endanger health or the environment shall be orally reported to EPA at (214) 665-6595 and NMED Surface Water Quality Bureau at (505) 827-0187, within 24 hours from the time the permittee becomes aware of the circumstance. A written report of overflows which endanger health or the environment, shall be provided to EPA and the NMED Surface Water Quality Bureau within 5 days of the time the permittee becomes aware of the circumstance.
7. Any noncompliance which may endanger health or the environment shall also be orally reported to the Pueblo of Isleta at (505) 869-5748 and to the U. S. Fish and Wildlife Service, Albuquerque Field office at (505) 761-4525, as soon as possible, but within 12 hours from the time the permittee becomes aware of the circumstance. A written report of overflows which endanger health or the environment, shall be provided within 5 days of the time the permittee becomes aware of the circumstance.
8. **RECEIVING STREAM MONITORING**

The permittee shall monitor the ambient flow upstream of the discharge from 12:00 am to 12:00 am the following day. The minimum flow recorded over a given month shall be reported. The permittee shall maintain the appropriate instream flow monitoring equipment and the associated solenoids, valves, etc; and have the equipment serviced and calibrated on a regular basis. The flow measurement shall be taken upstream of the discharge. The daily minimum flow value is defined as the individual minimum value (sample) of a single day for a given month.

Instead of the permittee installing and maintaining instream flow monitoring equipment, daily flow measurements taken by the U.S. Geological Survey and the US Corps of Engineers may be used for reporting purposes. Measurements must be collected at the permanently installed Rio Grande at Albuquerque gauge station number 0833000 located on the Rio Grande above the wastewater treatment plant discharge point.

SECTION A. OTHER REQUIREMENTS.**1. CONTRIBUTING INDUSTRIES AND PRETREATMENT REQUIREMENTS**

- a. The permittee shall operate an industrial pretreatment program in accordance with Section 402(b)(8) of the Clean Water Act, the General Pretreatment Regulations (40 CFR Part 403) and the approved POTW pretreatment program submitted by the permittee. The pretreatment program was approved on September 21, 1985 and modified on March 24, 1997. The POTW pretreatment program and the approved modifications are hereby incorporated by reference and shall be implemented in a manner consistent with the following requirements:

- (1) Industrial user information shall be updated at a frequency adequate to ensure that all Industrial Users (IUs) are properly characterized at all times;
- (2) The frequency and nature of industrial user compliance monitoring activities by the permittee shall be commensurate with the character, consistency and volume of waste. However, in keeping with the requirements of 40 CFR 403.8 (f)(2)(v), the permittee must inspect and sample the effluent from each Significant Industrial User at least once a year. This is in addition to any industrial self-monitoring activities;
- (3) The permittee shall enforce and obtain remedies for noncompliance by any industrial users with applicable pretreatment standards and requirements;
- (4) The permittee shall control through permit, order, or similar means, the contribution to the POTW by each Industrial User to ensure compliance with applicable Pretreatment Standards and Requirements. In the case of Industrial Users identified as significant under 40 CFR 403.3(t), this control shall be achieved through permits or equivalent individual control mechanisms issued to each such user. Such control mechanisms must be enforceable and contain, at a minimum, the following conditions:
 - (i) Statement of duration (in no case more than five years);
 - (ii) Statement of non-transferability without, at a minimum, prior notification to the POTW and provision of a copy of the existing control mechanism to the new owner or operator;
 - (iii) Effluent limits based on applicable general pretreatment standards, categorical pretreatment standards, local limits, and State and local law;
 - (iv) Self-monitoring, sampling, reporting, notification and recordkeeping requirements, including an identification of the pollutants to be monitored, sampling location, sampling frequency, and sample type, based on the applicable general pretreatment standards in 40 CFR 403, categorical pretreatment standards, local limits, and State and local law; and
 - (v) Statement of applicable civil and criminal penalties for violation of pretreatment standards and requirements, and any applicable

compliance schedule. Such schedules may not extend the compliance date beyond federal deadlines.

- (5) The permittee shall evaluate, at least once every two years, whether each Significant Industrial User needs a plan to control slug discharges. If the POTW decides that a slug control plan is needed, the plan shall contain at least the minimum elements required in 40 CFR 403.8 (f)(2)(v);
 - (6) The permittee shall provide adequate staff, equipment, and support capabilities to carry out all elements of the pretreatment program; and,
 - (7) The approved program shall not be modified by the permittee without the prior approval of the EPA.
- b. The permittee shall establish and enforce specific limits to implement the provisions of 40 CFR Parts 403.5(a) and (b), as required by 40 CFR Part 403.5(c). Each POTW with an approved pretreatment program shall continue to develop these limits as necessary and effectively enforce such limits.

The permittee shall, within sixty (60) days of the effective date of this permit, (1) submit a **WRITTEN CERTIFICATION** that a technical evaluation has demonstrated that the existing technically based local limits (TBLL) are based on current state water quality standards and are adequate to prevent pass through of pollutants, inhibition of or interference with the treatment facility, worker health and safety problems, and sludge contamination, OR (2) submit a **WRITTEN NOTIFICATION** that a technical evaluation revising the current TBLL and a draft sewer use ordinance which incorporates such revisions will be submitted within 12 months of the effective date of this permit.

All specific prohibitions or limits developed under this requirement are deemed to be conditions of this permit. The specific prohibitions set out in 40 CFR Part 403.5(b) shall be enforced by the permittee unless modified under this provision.

- c. The permittee shall analyze the treatment facility influent and effluent for the presence of the toxic pollutants listed in 40 CFR 122 Appendix D (NPDES Application Testing Requirements) Table II at least **Once/6 Months** and the toxic pollutants in Table III at least **Once/2 Months**. If, based upon information available to the permittee, there is reason to suspect the presence of any toxic or hazardous pollutant listed in Table V, or any other pollutant, known or suspected to adversely affect treatment plant operation, receiving water quality, or solids disposal procedures, analysis for those pollutants shall be performed at least **Once/2 Months** on both the influent and the effluent.

The influent and effluent samples collected shall be composite samples consisting of at least 12 aliquots collected at approximately equal intervals over a representative 24 hour period and composited according to flow. Sampling and analytical procedures shall be in accordance with guidelines established in 40 CFR 136. The effluent samples shall be analyzed to a level as required in (f) below. Where composite samples are inappropriate, due to sampling, holding time, or analytical constraints, at least 4 grab samples, taken at equal intervals over a representative 24 hour period, shall be taken.

- d. The permittee shall prepare annually a list of Industrial Users which during the preceding twelve months were in significant noncompliance with applicable

pretreatment requirements. For the purposes of this Part, significant noncompliance shall be determined based upon the more stringent of either criteria established at 40 CFR Part 403.8(f)(2)(vii) [rev. 7/24/90] or criteria established in the approved POTW pretreatment program. This list is to be published annually in the largest daily newspaper in the municipality during the month of September.

In addition, during the month of September the permittee shall submit an updated pretreatment program status report to EPA and the State containing the following information:

- (1) An updated list of all significant industrial users. For each industrial user listed the following information shall be included:
 - (i) Standard Industrial Classification (SIC) code and categorical determination;
 - (ii) Control document status. Whether the user has an effective control document, and the date such document was last issued, reissued, or modified, (indicate which industrial users were added to the system (or newly identified) within the previous 12 months);
 - (iii) A summary of all monitoring activities performed within the previous 12 months. The following information shall be reported:
 - * total number of inspections performed;
 - * total number of sampling visits made;
 - (iv) Status of compliance with both effluent limitations and reporting requirements. Compliance status shall be defined as follows:
 - * Compliant (C) - no violations during the previous 12 month period;
 - * Non-compliant (NC) - one or more violations during the previous 12 months but does not meet the criteria for significantly noncompliant industrial users;
 - * Significant Noncompliance (SN) - in accordance with requirements described in d. above; and
 - (v) For significantly noncompliant industrial users, indicate the nature of the violations, the type and number of actions taken (notice of violation, administrative order, criminal or civil suit, fines or penalties collected, etc.) and current compliance status. If ANY industrial user was on a schedule to attain compliance with effluent limits, indicate the date the schedule was issued and the date compliance is to be attained;
- (2) A list of all significant industrial users whose authorization to discharge was terminated or revoked during the preceding 12 month period and the reason for termination;
- (3) A report on any interference, pass through, upset or POTW permit violations

known or suspected to be caused by industrial contributors and actions taken by the permittee in response;

- (4) The results of all influent and effluent analyses performed pursuant to Part II(A)(1)(c) above;
- (5) A copy of the newspaper publication of the significantly noncompliant industrial users giving the name of the newspaper and the date published;
- (6) The information requested may be submitted in tabular form as per the example tables provided for your convenience; and
- (7) The monthly average water quality based effluent concentration necessary to meet the state water quality standards as developed in the approved technically based local limits.

e. The permittee shall provide adequate notice of the following:

- (1) Any new introduction of pollutants into the treatment works from an indirect discharger which would be subject to Sections 301 and 306 of the Act if it were directly discharging those pollutants; and
- (2) Any substantial change in the volume or character of pollutants being introduced into the treatment works by a source introducing pollutants into the treatment works at the time of issuance of the permit.

Adequate notice shall include information on (i) the quality and quantity of effluent to be introduced into the treatment works, and (ii) any anticipated impact of the change on the quality or quantity of effluent to be discharged from the POTW.

f. All effluent monitoring conducted in accordance with Part (II) (A) (1) (c) above shall meet the Minimum Quantification Levels (MQLs) shown in Attachment A:

ATTACHMENT A

MINIMUM QUANTIFICATION LEVELS (MQLs)

REQUIRED MQL			REQUIRED MQL		
METALS AND CYANIDE	(ug/L)	EPA METHOD	VOLATILE COMPOUNDS	(ug/L)	EPA METHOD
Antimony (Total) ¹	60	200.7	1,1,2,2-Tetrachloroethane ³	10	624
Arsenic (Total) ¹	10	206.2	Tetrachloroethylene ³	10	624
Beryllium (Total) ¹	5	200.7	Toluene ³	10	624
Cadmium (Total) ²	1	213.2	1,2-trans-Dichloroethylene ³	10	624
Chromium (Total) ¹	10	200.7	1,1,1-Trichloroethane ³	10	624
Chromium (3+) ¹	10	200.7	1,1,2-Trichloroethane ³	10	624
Chromium (6+) ¹	10	200.7	Trichloroethylene ³	10	624
Copper (Total) ²	10	220.2	Vinyl Chloride ³	10	624
Lead (Total) ²	5	239.2	ACID COMPOUNDS		
Mercury (Total) ¹	.2	245.1	2-Chlorophenol ³	10	625
Molybdenum (Total) ³	30	200.7	2,4-Dichlorophenol ³	10	625
Nickel (Total) ¹ [Freshwater]	40	200.7	2,4-Dimethylphenol ³	10	625
Nickel (Total) ² [Marine]	5	249.2	4,6-Dinitro-o-Cresol		
Selenium (Total) ¹	5	270.2	[2 methyl 4,6-dinitrophenol] ³	50	625
Silver (Total) ²	2	272.2	2,4-Dinitrophenol ³	50	625
Thallium (Total) ¹	10	279.2	2-Nitrophenol ⁴	20	625
Zinc (Total) ¹	20	200.7	4-Nitrophenol ³	50	625
Cyanide (Total) ¹	10	335.3	p-Chloro-m-Cresol		
<u>DIOXIN</u>			[4-chloro-3-methylphenol] ³	10	625
2,3,7,8-Tetrachloro-dibenzo-	.00001	1613	Pentachlorophenol ³	50	625
p-dioxin (TCDD) ¹			Phenol ³	10	625
<u>VOLATILE COMPOUNDS</u>			2,4,6-Trichlorophenol ³	10	625
Acrolein ⁴	50	624	<u>BASE/NEUTRAL COMPOUNDS</u>		
Acrylonitrile ⁴	50	624	Acenaphthene ³	10	625
Benzene ⁴	10	624	Acenaphthylene ³	10	625
Bromoform ³	10	624	Anthracene ³	10	625
Carbon Tetrachloride ³	10	624	Benzidine ⁴	50	625
Chlorobenzene ³	10	624	Benzo(a)anthracene ³	10	625
Chlorodibromomethane ³	10	624	Benzo(a)pyrene ³	10	625
Chloroethane ³	50	624	3,4-Benzofluoranthene ³	10	625
2-Chloroethyl vinyl ether ⁴	10	624	Benzo(ghi)perylene ³	20	625
Chloroform ³	10	624	Benzo(k)fluoranthene ³	10	625
Dichlorobromomethane ³	10	624	Bis(2-chloroethoxy) methane ⁴	10	625
1,1-Dichloroethane ³	10	624	Bis(2-chloroethyl) ether ³	10	625
1,2-Dichloroethane ³	10	624	Bis(2-chloroisopropyl) ether ³	10	625
1,1-Dichloroethylene ³	10	624	Bis(2-ethylhexyl) phthalate ³	10	625
1,2-Dichloropropane ³	10	624	4-Bromophenyl phenyl ether ³	10	625
1,3-Dichloropropylene ³	10	624	Butyl benzyl phthalate ³	10	625
Ethylbenzene ³	10	624	2-Chloronaphthalene ³	10	625
Methyl Bromide [Bromomethane] ⁴	50	624	4-Chlorophenyl phenyl ether ³	10	625
Methyl Chloride [Chloromethane] ⁴	50	624	Chrysene ³	10	625
Methylene Chloride ³	20	624			

ATTACHMENT A

<u>BASE/NEUTRAL COMPOUNDS</u>	<u>(ug/L)</u>	<u>EPA METHOD</u>	<u>PESTICIDES</u>	<u>(ug/L)</u>	<u>EPA METHOD</u>
Dibenzo (a,h) anthracene ⁵	20	625	Endrin ⁷	.1	608
1,2-Dichlorobenzene ⁵	10	625	Endrin aldehyde ⁷	.1	608
1,3-Dichlorobenzene ⁵	10	625	Heptachlor ⁷	.05	608
1,4-Dichlorobenzene ⁵	10	625	Heptachlor epoxide ⁷	.1	608
3,3'-Dichlorobenzidine ⁴	50	625	(BHC-hexachlorocyclohexane)		
Diethyl Phthalate ⁵	10	625	PCB-1242 ⁷	1.0	608
Dimethyl Phthalate ⁵	10	625	PCB-1254	1.0	608
Di-n-Butyl Phthalate ⁵	10	625	PCB-1221	1.0	608
2,4-Dinitrotoluene ⁵	10	625	PCB-1232	1.0	608
2,6-Dinitrotoluene ⁵	10	625	PCB-1248	1.0	608
Di-n-octyl Phthalate ⁵	10	625	PCB-1260	1.0	608
1,2-Diphenylhydrazine ⁴	20	625	PCB-1016	1.0	608
Fluoranthene ⁵	10	625	Toxaphene ⁷	5.0	608
Fluorene ⁵	10	625			
Hexachlorobenzene ⁵	10	625			
Hexachlorobutadiene ⁵	10	625			
Hexachlorocyclopentadiene ⁵	10	625			
Hexachloroethane ⁸	20	625			
Indeno (1,2,3-cd) pyrene ⁶	20	625			
(2,3-o-phenylene pyrene)					
Isophorone ⁵	10	625			
Naphthalene ⁵	10	625			
Nitrobenzene ⁵	10	625			
N-nitrosodimethylamine ⁴	50	625			
N-nitrosodi-n-propylamine ⁴	20	625			
N-nitrosodiphenylamine ⁴	20	625			
Phenanthrene ⁵	10	625			
Pyrene ⁵	10	625			
1,2,4-Trichlorobenzene ⁵	10	625			
<u>PESTICIDES</u>					
Aldrin ⁷	.05	608			
Alpha-BHC ⁷	.05				
608					
Beta-BHC ⁷	.05	608			
Gamma-BHC (Lindane) ⁷	.05	608			
Delta-BHC ⁷	.05	608			
Chlordane ⁷	.2	608			
4,4'-DDT ⁷	.1	608			
4,4'-DDE (p,p-DDX) ⁷	.1	608			
4,4'-DDD (p,p-TDE) ⁷	.1	608			
Dieldrin ⁷	.1	608			
Alpha-endosulfan ⁷	.1	608			
Beta-endosulfan ⁷	.1	608			
Endosulfan sulfate ⁷	.1	608			

¹ Based on Contract Required Detection level (CRDL) developed pursuant to 40 CFR Part 300.430(b)(8)² Method 213.2, 239.2, 220.2, 272.2³ Dioxin National Strategy⁴ No CRQL (Contract required Quantification Level) developed pursuant to 40 CFR Part 300.430(b)(8)) established⁵ CRQL basis, equivalent to ML⁶ ML basis, higher than CRQL⁷ CRQL basis, no ML established⁸ CRQL basis, higher than ML⁹ Based on 3.3 times IDL published in 40 CFR 136, Appendix C

4/17/95

Permit No. NM0022250 Page 7 of Part II
MONITORING RESULTS ¹ FOR THE ANNUAL PRETREATMENT REPORT, REPORTING YEAR: _____, 200__ TO _____, 200__
TREATMENT PLANT : _____ NPDES PERMIT NO. _____

Page 7 of Part II

MONITORING RESULTS ¹ FOR THE ANNUAL PRETREATMENT REPORT, REPORTING YEAR: _____, 200__ TO _____, 200__
TREATMENT PLANT : _____ NPDES PERMIT NO. _____

[illegible]

Permit No. NM0022250

² It is advised that the influent and effluent samples are collected considering flow detention time through each plant. Analytical MQLs should be used so that the data can also be used for Local Limits assessment and NPDES application purposes.

² Maximum Allowable Headworks Loading limitation in $\mu\text{g/L}$. Only complete for pollutants that have approved Technically Based Local Limits.

¹ Daily average effluent limit in the NPDES permit OR the applicable state Water Quality Standard calculated to an equivalent permit effluent limit.

⁴ Record the names of any pollutants (40 CFR 122, Appendix D, Table II and/or Table V) detected and the quantity in which they were detected.

**PRETREATMENT PROGRAM STATUS REPORT
UPDATED SIGNIFICANT INDUSTRIAL USERS LIST**

INDUSTRIAL USER	SIC CODE	CATE- GORICAL DETER- MINATION	CONTROL DOCUMENT		NEW USER	TIMES INSPECTED	TIMES SAMPLED	COMPLIANCE STATUS				EFFLUENT LIMITS
			Y/N	LAST ACTION				REPORTS				
								BMR	90-DAY COMPLIANCE	SEMI- ANNUAL	SELF MONITORING	

DRAFT

SIGNIFICANTLY NONCOMPLIANT USERS - ENFORCEMENT ACTIONS TAKEN

INDUSTRIAL USER	NATURE OF VIOLATION		NUMBER OF ACTIONS TAKEN					PENALTIES COLLECTED	COMPLIANCE SCHEDULE		CURRENT STATUS	COMMENTS
	REPORTS	LIMITS	NOV	A.O.	CIVIL	CRIMINAL	OTHER		DATE ISSUED	DATE DUE		

DRAFT

2. POLLUTION PREVENTION REQUIREMENTS

- (1) The permittee shall institute a program within 12 months of the effective date of the permit (or continue an existing one) directed towards optimizing the efficiency and extending the useful life of the facility. The permittee shall consider the following items in the program:

- a. The influent loadings, flow and design capacity;
- b. The effluent quality and plant performance;
- c. The age and expected life of the wastewater treatment facility's equipment;
- d. Bypasses and overflows of the tributary sewerage system and treatment works;
- e. New developments at the facility;
- f. Operator certification and training plans and status;
- g. The financial status of the facility;
- h. Preventative maintenance programs and equipment conditions and;
- i. An overall evaluation of conditions at the facility.

- (2) The permittee shall complete the following evaluation of the sewage sludge generated by the facility:

- DRAFT**
- a. An annual quantitative tabulation of the ultimate disposition of all sewage sludge (including, but not limited to, the amount beneficially reused, landfilled, surface disposed, and incinerated).
 - b. An assessment of technological processes and an economic analysis evaluating the potential for beneficial reuse of all sewage sludge not currently beneficially reused, including a listing of any steps which would be required to achieve the sludge quality necessary to beneficially reuse the sludge.
 - c. ~~A description of, including the expected results and the anticipated timing for, all projects in process, in planning and/or being considered which are directed towards additional beneficial reuse of sewage sludge.~~
 - d. A sludge sample analysis collected prior to ultimate re-use or disposal shall be performed for the pollutants listed in Part IV, Element 1, Section III, Table 3 of the permit.
 - e. A listing of the specific steps (controls/changes) which would be necessary to achieve and sustain the quality of the sludge so that the pollutant concentrations in the sludge fall below the pollutant concentration criteria listed in Part IV, Element I, Section III, Table 3 of the permit.
 - f. A listing of, and the anticipated timing for, all projects in process, in

planning, and/or being considered which are directed towards meeting the sludge quality referenced in (e) above.

The permittee shall certify in writing, within three years of the effective date of the permit, that this information is available. This certification shall be submitted to: Environmental Protection Agency, 6EN-WC, 1445 Ross Ave, Dallas, Texas, 75202-2733

- (3) It is recognized that the City of Albuquerque previously received a two-year (1992-1994) EPA Pilot Program grant to help institutionalize waste minimization through Pollution Prevention within the POTW's pretreatment program. This was in part intended to assist the City in meeting its NPDES discharge and biosolids limits. It was also intended to help the City meet NPDES required pollution prevention requirements in the other portions of this section (Part II, Section B). The City, since 1994, is recognized to have implemented a functioning pollution prevention component within the Industrial Pretreatment Program.

EPA recognizes the benefit of complimenting an industrial pretreatment program with a nonregulatory program element that is principally aimed at education, training and outreach to accomplish voluntary implementation at a diverse number of businesses that would otherwise be outside the scope and ability of a traditional pretreatment program to address. The City shall be required to continue the implementation with the pretreatment program of a nonregulatory component dedicated to education and promotion of pollution prevention. The City is required to report to EPA annually with the pretreatment program annual report a summary of pollution prevention activities performed. Activities to be reported include:

- a. workshops held
- b. promotional materials developed
- c. targeted industries and businesses
- d. attendance by invitee's
- e. follow-up activities
- f. case histories developed
- g. ~~any quantifiable results of waste minimization implementation~~
- h. any nonquantifiable impacts of waste minimization implementation (e.g.,: closed loop controls, housekeeping practices, materials substitutions, treatment changes, changed practices and any others).
- i. seminars attended to improve program
- j. manpower and materials costs associated with program work
- k. inspections performed with case studies follow-up
- l. trade association contacts and meetings/presentations
- m. other specific program activities not listed

EPA is committed to the principals of accomplishing waste minimization, pollution prevention and source control, and will provide available guidance, information and assistance to assist the City. In addition, grant programs may be available and information will be supplied as available to encourage applications.

3. PERMIT MODIFICATION

In accordance with 40 CFR 122.44(d), the permit may be reopened and modified during the life of the permit if relevant portions of New Mexico's Water Quality Standards for Interstate and Intrastate Streams or the Pueblo of Isleta Water Quality Standards are revised, or new State or Tribal water quality standards are established and/or remanded by the New Mexico Water Quality Control Commission or the Pueblo of Isleta. In addition, the permit may be reopened and modified during the life of the permit, if the procedures implementing the Water Quality Standards for Interstate and Intrastate Streams in New Mexico are either revised or promulgated by the New Mexico Environment Department, or, or if EPA revised the Pueblo of Isleta Implementation Plan, or the Pueblo of Isleta develop's its own Implementation Plan.

In accordance with 40 CFR Part 122.62 (s) (2), the permit may be reopened and modified if new information is received that was not available at the time of permit issuance that would have justified the application of different permit conditions at the time of permit issuance. Permit modifications shall reflect the results of any of these actions and shall follow regulations listed at 40 CFR Part 124.5

The Pueblo of Isleta has revised its water quality standards, and is waiting for EPA approval. When the revised standards are approved, passed, and adopted, this permit may be modified to conform with the revised Pueblo of Isleta Water Quality Standards.

DRAFT

SECTION B.WHOLE EFFLUENT TOXICITY LIMITS (7-DAY CHRONIC NOEC FRESHWATER)**1. SCOPE AND METHODOLOGY**

- a. The permittee shall test the effluent for toxicity in accordance with the provisions in this section.

APPLICABLE TO FINAL OUTFALL(S): 001

REPORTED ON DMR AS FINAL OUTFALL: 001

CRITICAL DILUTION (%):

The applicable critical dilution for the flow conditions included in Part I of this permit are as follows:

Low Flow (68 CFS)	63%
0 MGD Low Flow	100%

EFFLUENT DILUTION SERIES (%):

Low Flow (68 CFS)	27%, 35%, 47%, 63%, 84%
0 MGD Low Flow	32%, 42%, 56%, 75%, 100%

Note: Because the permit includes two critical dilutions, the permittee shall report in the comment field of the DMR for that reporting period, which low-flow concentration was used for the biomonitoring test conducted.

COMPOSITE SAMPLE TYPE: Defined at PART I

TEST SPECIES/METHODS: 40 CFR Part 136

Ceriodaphnia dubia chronic static renewal survival and reproduction test, Method 1002.0, EPA/600/4-91/002 or the most recent update thereof. This test should be terminated when 60% of the surviving females in the control produce three broods or at the end of eight days, whichever comes first.

Pimephales promelas (Fathead minnow) chronic static renewal 7-day larval survival and growth test, Method 1000.0, EPA/600/4-91/002, or the most recent update thereof. A minimum of five (5) replicates with eight (8) organisms per replicate must be used in the control and in each effluent dilution of this test.

- b. The NOEC (No Observed Lethal Effect Concentration) is defined as the greatest effluent dilution at and below which lethality that is statistically different from the control (0% effluent) at the 95% confidence level does not occur. Chronic lethal test failure is defined as a demonstration of a statistically significant lethal effect at test completion to a test species at or below the critical dilution.

- c. The conditions of this item are effective beginning with the effective date of the WET limit. When the testing frequency stated above is less than monthly and the effluent fails the survival endpoint at or below the critical dilution, the permittee shall be considered in violation of this permit limit and the frequency for the affected species will increase to monthly until such time compliance with the Lethal No Observed Effect Concentration (NOEC) effluent limitation is demonstrated for a period of three consecutive months, at which time the permittee may return to the testing frequency stated in PART I of this permit. During the period the permittee is out of compliance, test results shall be reported on the DMR for that reporting period.
- d. This permit may be reopened to require chemical specific effluent limits, additional testing, and/or other appropriate actions to address toxicity.
- e. Test failure is defined as a demonstration of statistically significant sub-lethal or lethal effects to a test species at or below the effluent critical dilution.

2. REQUIRED TOXICITY TESTING CONDITIONS

a. Test Acceptance

The permittee shall repeat a test, including the control and all effluent dilutions, if the procedures and quality assurance requirements defined in the test methods or in this permit are not satisfied, including the following additional criteria:

- i. The toxicity test control (0% effluent) must have survival equal to or greater than 80%.
- ii. The mean number of Ceriodaphnia dubia neonates produced per surviving female in the control (0% effluent) must be 15 or more.
- iii. 60% of the surviving control females must produce three broods.
- iv. ~~The mean dry weight of surviving Fathead minnow larvae at the end of the 7 days in the control (0% effluent) must be 0.25 mg per larva or greater.~~
- v. The percent coefficient of variation between replicates shall be 40% or less in the control (0% effluent) for: the young of surviving females in the Ceriodaphnia dubia reproduction test, the growth and survival of the Fathead minnow test.
- vi. The percent coefficient of variation between replicates shall be 40% or less in the critical dilution, unless significant lethal or nonlethal effects are exhibited for: the young of surviving females in the Ceriodaphnia dubia reproduction test; the growth and survival endpoints in the Fathead minnow test.

Test failure may not be construed or reported as invalid due to a coefficient of

variation value of greater than 40%. A repeat test shall be conducted within the required reporting period of any test determined to be invalid.

b. Statistical Interpretation

- i. For the Ceriodaphnia dubia survival test, the statistical analyses used to determine if there is a significant difference between the control and the critical dilution shall be Fisher's Exact Test as described in EPA/600/4-91/002 or the most recent update thereof.

If the conditions of Test Acceptability are met in Item 2.a above and the percent survival of the test organism is equal to or greater than 80% in the critical dilution concentration and all lower dilution concentrations, the test shall be considered to be a passing test, and the permittee shall report an NOEC of not less than the critical dilution for the DMR reporting requirements found in Item 3 below.

- ii. For the Ceriodaphnia dubia reproduction test and the Fathead minnow larval survival and growth test, the statistical analyses used to determine if there is a significant difference between the control and the critical dilution shall be in accordance with the methods for determining the No Observed Effect Concentration (NOEC) as described in EPA/600/4-91/002 or the most recent update thereof.

c. Dilution Water

- i. Dilution water used in the toxicity tests will be receiving water collected as close to the point of discharge as possible but unaffected by the discharge. The permittee shall substitute synthetic dilution water of similar pH, hardness, and alkalinity to the closest downstream perennial water where the receiving stream is classified as intermittent or where the receiving stream has no flow due to zero flow conditions.

- ii. If the receiving water is unsatisfactory as a result of instream toxicity (fails to fulfill the test acceptance criteria of Item 2.a), the permittee may substitute synthetic dilution water for the receiving water in all subsequent tests provided the unacceptable receiving water test met the following stipulations:

- (A) a synthetic dilution water control which fulfills the test acceptance requirements of Item 2.a was run concurrently with the receiving water control;
- (B) the test indicating receiving water toxicity has been carried out to completion (i.e., 7 days);
- (C) the permittee includes all test results indicating receiving water toxicity with the full report and information required by Item 3.a below; and

- (D) the synthetic dilution water shall have a pH, hardness, and alkalinity similar to that of the receiving water or closest downstream perennial water not adversely affected by the discharge, provided the magnitude of these parameters will not cause toxicity in the synthetic dilution water.

d. Samples and Composites

- i. The permittee shall collect a minimum of three flow-weighted composite samples from the outfall(s) listed at Item 1.a above.
- ii. The permittee shall collect second and third composite samples for use during 24-hour renewals of each dilution concentration for each test. The permittee must collect the composite samples such that the effluent samples are representative of any periodic episode of chlorination, biocide usage or other potentially toxic substance discharged on an intermittent basis.
- iii. The permittee must collect the composite samples so that the maximum holding time for any effluent sample shall not exceed 72 hours. The permittee must have initiated the toxicity test within 36 hours after the collection of the last portion of the first composite sample. Samples shall be chilled to 4 degrees Centigrade during collection, shipping, and/or storage.
- iv. If the flow from the outfall(s) being tested ceases during the collection of effluent samples, the requirements for the minimum number of effluent samples, the minimum number of effluent portions and the sample holding time are waived during that sampling period. However, the permittee must collect an effluent composite sample volume during the period of discharge that is sufficient to complete the required toxicity tests with daily renewal of effluent. When possible, the effluent samples used for the toxicity tests shall be collected on separate days if the discharge occurs over multiple days. The effluent composite sample collection duration and the static renewal protocol associated with the abbreviated sample collection must be documented in the full report required in Item 3 of this section.
- v. MULTIPLE OUTFALLS: If the provisions of this section are applicable to multiple outfalls, the permittee shall combine the composite effluent samples in proportion to the average flow from the outfalls listed in Item 1.a above for the day the sample was collected. The permittee shall perform the toxicity test on the flow-weighted composite of the outfall samples.

3. REPORTING

- a. The permittee shall prepare a full report of the results of all tests conducted pursuant to this section in accordance with the Report Preparation Section of

EPA/600/4-91/002, or the most current publication, for every valid or invalid toxicity test initiated whether carried to completion or not. The permittee shall retain each full report pursuant to the provisions of PART III.C.3 of this permit. The permittee shall submit full reports upon the specific request of the Agency. For any test which fails, is considered invalid or which is terminated early for any reason, the full report must be submitted for agency review.

- b. The permittee shall report the Whole Effluent Lethality values for the 30-Day Average Minimum and the 7-Day Minimum under Parameter No. 22414 on the DMR for that reporting period in accordance with PART III.D.4 of this permit.

If more than one valid test for a species was performed during the reporting period, the test NOECs will be averaged arithmetically and reported as the DAILY AVERAGE MINIMUM NOEC for that reporting period.

If more than one species is tested during the reporting period, the permittee shall report the lowest 30-Day Average Minimum NOEC and the lowest 7-Day Minimum NOEC for Whole Effluent Lethality.

A valid test for each species must be reported on the DMR during each reporting period specified in PART I of this permit. Only ONE set of biomonitoring data for each species is to be recorded on the DMR for each reporting period. The data submitted should reflect the LOWEST Survival results for each species during the reporting period. All invalid tests, repeat tests (for invalid tests), and retests (for tests previously failed) performed during the reporting period must be attached to the DMR for EPA review.

- c. The permittee shall submit the results of the valid toxicity test on the DMR for that reporting period in accordance with PART III.D.4 of this permit, as follows below. Submit retest information clearly marked as such with the following month's DMR. Only results of valid tests are to be reported on the DMR.

i. Pimephales promelas (Fathead Minnow)

-
- (A) If the No Observed Effect Concentration (NOEC) for survival is less than the critical dilution, enter a "1"; otherwise, enter a "0" for Parameter No. TLP6C.
- (B) Report the NOEC value for survival, Parameter No. TOP6C.
- (C) Report the NOEC value for growth, Parameter No. TPP6C.
- (D) If the No Observed Effect Concentration (NOEC) for growth is less than the critical dilution, enter a "1"; otherwise, enter a "0" for Parameter No. TGP6C.
- (E) Report the highest (critical dilution or control) Coefficient of Variation, Parameter No. TQP6C.

ii. Ceriodaphnia dubia

- (A) If the NOEC for survival is less than the critical dilution, enter a "1"; otherwise, enter a "0" for Parameter No. TLP3B.
- (B) Report the NOEC value for survival, Parameter No. TOP3B.
- (C) Report the NOEC value for reproduction, Parameter No. TPP3B.
- (D) If the No Observed Effect Concentration (NOEC) for reproduction is less than the critical dilution, enter a "1"; otherwise, enter a "0" for Parameter No. TGP3B.
- (E) Report the higher (critical dilution or control) Coefficient of Variation, Parameter No. TQP3B.

Monitoring Frequency Reduction

This section does not apply to any species for which the permit establishes whole effluent toxicity (WET) limits. For the first five years after the effective date of a WET limit, the minimum monitoring frequency for the affected species is once per quarter.

- DRAFT**
- a. The permittee may apply for a testing frequency reduction upon the successful completion of the first four consecutive quarters of testing for a test species, with no lethal or sub-lethal effects demonstrated at or below the critical dilution. If granted, the monitoring frequency for that test species may be reduced to not less than once per year for the less sensitive species (usually the Fathead minnow) and not less than twice per year for the more sensitive test species (usually the *Daphnia pulex*).
 - b. **CERTIFICATION** - The permittee must certify in writing that no test failures have occurred and that all tests meet all test acceptability criteria in item 3.a. above. In addition the permittee must provide a list with each test performed including test initiation date, species, NOECs for lethal and sub-lethal effects and the maximum coefficient of variation for the controls. Upon review and acceptance of this information the agency will issue a letter of confirmation of the monitoring frequency reduction. A copy of the letter will be forwarded to the agency's Permit Compliance System section to update the permit reporting requirements.
 - c. **SURVIVAL FAILURES** - If any test fails the survival endpoint at any time during the life of this permit, two monthly retests are required and the monitoring frequency for the affected test species shall be increased to once per quarter until the permit is re-issued. Monthly retesting is not required if the permittee is performing a TRE.
 - d. This monitoring frequency reduction applies only until the expiration date of this permit, at which time the monitoring frequency for both test species reverts to once per quarter until the permit is re-issued.

PART III - STANDARD CONDITIONS FOR NPDES PERMITS**A. GENERAL CONDITIONS****1. INTRODUCTION**

In accordance with the provisions of 40 CFR Part 122.41, et. seq., this permit incorporates by reference ALL conditions and requirements applicable to NPDES Permits set forth in the Clean Water Act, as amended, (hereinafter known as the "Act") as well as ALL applicable regulations.

2. DUTY TO COMPLY

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

3. TOXIC POLLUTANTS

- a. Notwithstanding Part III A.5, if any toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under Section 307(a) of the Act for a toxic pollutant which is present in the discharge and that standard or prohibition is more stringent than any limitation on the pollutant in this permit, this permit shall be modified or revoked and reissued to conform to the toxic effluent standard or prohibition.
- b. The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Act for toxic pollutants within the time provided in the regulations that established those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

4. DUTY TO REAPPLY

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. The application shall be submitted at least 180 days before the expiration date of this permit. The Director may grant permission to submit an application less than 180 days in advance but no later than the permit expiration date. Continuation of expiring permits shall be governed by regulations promulgated at 40 CFR Part 122.6 and any subsequent amendments.

5. PERMIT FLEXIBILITY

This permit may be modified, revoked and reissued, or terminated for cause in accordance with 40 CFR 122.62-64. The filing of a request for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

6. PROPERTY RIGHTS

This permit does not convey any property rights of any sort, or any exclusive privilege.

7. DUTY TO PROVIDE INFORMATION

The permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.

8. CRIMINAL AND CIVIL LIABILITY

Except as provided in permit conditions on "Bypassing" and "Upsets", nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance. Any false or materially misleading representation or concealment of information required to be reported by the provisions of the permit, the Act, or applicable regulations, which avoids or effectively defeats the regulatory purpose of the Permit may subject the Permittee to criminal enforcement pursuant to 18 U.S.C. Section 1001.

9. OIL AND HAZARDOUS SUBSTANCE LIABILITY

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 of the Act.

10. STATE LAWS

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or regulation under authority preserved by Section 510 of the Act.

11. SEVERABILITY

The provisions of this permit are severable, and if any provision of this permit or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

B. PROPER OPERATION AND MAINTENANCE**1. NEED TO HALT OR REDUCE NOT A DEFENSE**

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. The permittee is responsible for maintaining adequate safeguards to prevent the discharge of untreated or inadequately treated wastes during electrical power failure either by means of alternate power sources, standby generators or retention of inadequately treated effluent.

2. DUTY TO MITIGATE

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

3. PROPER OPERATION AND MAINTENANCE

a. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by permittee as efficiently as possible and in a manner which will minimize upsets and discharges of excessive pollutants and will achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of this permit.

b. The permittee shall provide an adequate operating staff which is duly qualified to carry out operation, maintenance and testing functions required to insure compliance with the conditions of this permit.

4. BYPASS OF TREATMENT FACILITIES**a. BYPASS NOT EXCEEDING LIMITATIONS**

The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Parts III B.4.b. and 4.c.

b. NOTICE**(1) ANTICIPATED BYPASS**

If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass.

(2) UNANTICIPATED BYPASS

The permittee shall, within 24 hours, submit notice of an unanticipated bypass as required in Part III D.7.

c. PROHIBITION OF BYPASS

(1) Bypass is prohibited, and the Director may take enforcement action against a permittee for bypass, unless:

(a) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

(b) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and,

(c) The permittee submitted notices as required by Part III B.4.b.

(2) The Director may allow an anticipated bypass after considering its adverse effects, if the Director determines that it will meet the three conditions listed at Part III B.4.c.(1).

5. UPSET CONDITIONS**a. EFFECT OF AN UPSET**

An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of Part III.B.5.b. are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

b. CONDITIONS NECESSARY FOR A DEMONSTRATION OF UPSET

A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

- (1) An upset occurred and that the permittee can identify the cause(s) of the upset;
- (2) The permitted facility was at the time being properly operated;
- (3) The permittee submitted notice of the upset as required by Part III.D 7; and,
- (4) The permittee complied with any remedial measures required by Part III B 2.

c. BURDEN OF PROOF

In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

6. REMOVED SUBSTANCES

Unless otherwise authorized, solids, sewage sludges, filter backwash, or other pollutants removed in the course of treatment or wastewater control shall be disposed of in a manner such as to prevent any pollutant from such materials from entering navigable waters.

7. PERCENT REMOVAL (PUBLICLY OWNED TREATMENT WORKS)

For publicly owned treatment works, the 30-day average (or Monthly Average) percent removal for Biochemical Oxygen Demand and Total Suspended Solids shall not be less than 85 percent unless otherwise authorized by the permitting authority in accordance with 40 CFR 133.103.

C. MONITORING AND RECORDS**1. INSPECTION AND ENTRY**

The permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by the law to:

- a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices or operations regulated or required under this permit; and
- d. Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by the Act, any substances or parameters at any location.

2. REPRESENTATIVE SAMPLING

Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

3. RETENTION OF RECORDS

The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report, or application. This period may be extended by request of the Director at any time.

4. RECORD CONTENTS

Records of monitoring information shall include:

- a. The date, exact place, and time of sampling or measurements;
- b. The individual(s) who performed the sampling or measurements;
- c. The date(s) and time(s) analyses were performed;
- d. The individual(s) who performed the analyses;
- e. The analytical techniques or methods used; and
- f. The results of such analyses.

5. MONITORING PROCEDURES

- a. Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit or approved by the Regional Administrator.
- b. The permittee shall calibrate and perform maintenance procedures on all monitoring and analytical instruments at intervals frequent enough to insure accuracy of measurements and shall maintain appropriate records of such activities.

- c. An adequate analytical quality control program, including the analyses of sufficient standards, spikes, and duplicate samples to insure the accuracy of all required analytical results shall be maintained by the permittee or designated commercial laboratory

6. FLOW MEASUREMENTS

Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated, and maintained to insure that the accuracy of the measurements is consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than 10% from true discharge rates throughout the range of expected discharge volumes.

D. REPORTING REQUIREMENTS

1. PLANNED CHANGES

a. INDUSTRIAL PERMITS

The permittee shall give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

- (1) The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR Part 122.29(b); or,
- (2) The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements listed at Part III.D.10.a.

b. MUNICIPAL PERMITS

Any change in the facility discharge (including the introduction of any new source or significant discharge or significant changes in the quantity or quality of existing discharges of pollutants) must be reported to the permitting authority. In no case are any new connections, increased flows, or significant changes in influent quality permitted that will cause violation of the effluent limitations specified herein.

2. ANTICIPATED NONCOMPLIANCE

The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

3. TRANSFERS

This permit is not transferable to any person except after notice to the Director. The Director may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the Act.

4. DISCHARGE MONITORING REPORTS AND OTHER REPORTS

Monitoring results must be reported on Discharge Monitoring Report (DMR) Form EPA No. 3320-1 in accordance with the "General Instructions" provided on the form. The permittee shall submit the original DMR signed and certified as required by Part III.D.11 and all other reports required by Part III.D. to the EPA at the address below. DMR's and all other reports shall be submitted to EPA, NMED, and Pueblo of Isleta at the following addresses:

EPA:

Compliance Assurance and Enforcement Division
Water Enforcement Branch (6EN-W)
U.S. Environmental Protection Agency, Region 6
1445 Ross Avenue
Dallas, TX 75202-2733

New Mexico:

Program Manager
Surface Water Quality Bureau
New Mexico Environment Department
P.O. Box 26110
1190 Saint Francis Drive
Santa Fe, NM 87502

Pueblo of Isleta:

Environmental Director
Pueblo of Isleta
P.O. Box 1270
Isleta, NM 87022

The permittee shall also submit a copy of an annual summary of the data that results from whole effluent toxicity testing to:

Field Supervisor
U.S. Fish and Wildlife Services Field Office
2105 Osuna NE
Albuquerque, NM 87113

5. ADDITIONAL MONITORING BY THE PERMITTEE

If the permittee monitors any pollutant more frequently than required by this permit, using test procedures approved under 40 CFR Part 136 or as specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the Discharge Monitoring Report (DMR). Such increased monitoring frequency shall also be indicated on the DMR.

6. AVERAGING OF MEASUREMENTS

Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Director in the permit.

7. TWENTY-FOUR HOUR REPORTING

a. The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall be provided within 5 days of the time the permittee becomes aware of the circumstances. The report shall contain the following information:

- (1) A description of the noncompliance and its cause,
- (2) The period of noncompliance including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue, and,
- (3) Steps being taken to reduce, eliminate, and prevent recurrence of the noncomplying discharge.

b. The following shall be included as information which must be reported within 24 hours:

- (1) Any unanticipated bypass which exceeds any effluent limitation in the permit;
- (2) Any upset which exceeds any effluent limitation in the permit; and,
- (3) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Director in Part II (industrial permits only) of the permit to be reported within 24 hours.

c. The Director may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

8. OTHER NONCOMPLIANCE

The permittee shall report all instances of noncompliance not reported under Parts III.D.4 and D.7 and Part I.B (for industrial permits only) at the time monitoring reports are submitted. The reports shall contain the information listed at Part III.D.7.

9. OTHER INFORMATION

Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, it shall promptly submit such facts or information.

10. CHANGES IN DISCHARGES OF TOXIC SUBSTANCES

All existing manufacturing, commercial, mining, and silvicultural permittees shall notify the Director as soon as it knows or has reason to believe:

- a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant listed at 40 CFR Part 122, Appendix D, Tables II and III (excluding Total Phenols) which is not limited in the permit, if that discharge will exceed the highest of the following

"notification levels":

- (1) One hundred micrograms per liter (100 µg/L);
- (2) Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile, five hundred micrograms per liter (500 µg/L) for 2,4-dinitro-phenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
- (3) Five (5) times the maximum concentration value reported for that pollutant in the permit application; or
- (4) The level established by the Director.

- b. That any activity has occurred or will occur which would result in any discharge, on a nonroutine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

- (1) Five hundred micrograms per liter (500 µg/L);
- (2) One milligram per liter (1 mg/L) for antimony;
- (3) Ten (10) times the maximum concentration value reported for that pollutant in the permit application; or
- (4) The level established by the Director.

11. SIGNATORY REQUIREMENTS

All applications, reports, or information submitted to the Director shall be signed and certified.

- a. ALL PERMIT APPLICATIONS shall be signed as follows:

- (1) FOR A CORPORATION - by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:
 - (a) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision making functions for the corporation; or,
 - (b) The manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
- (2) FOR A PARTNERSHIP OR SOLE PROPRIETORSHIP - by a general partner or the proprietor, respectively.
- (3) FOR A MUNICIPALITY, STATE, FEDERAL, OR OTHER PUBLIC AGENCY - by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes:
 - (a) The chief executive officer of the agency, or
 - (b) A senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.

- b. ALL REPORTS required by the permit and other information requested by the Director shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:

- (1) The authorization is made in writing by a person described above;
- (2) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, or position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. A duly authorized representative may thus be either a named individual or an individual occupying a named position; and,

- (3) The written authorization is submitted to the Director.

c. CERTIFICATION

Any person signing a document under this section shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

12. AVAILABILITY OF REPORTS

Except for applications, effluent data, permits, and other data specified in 40 CFR 122.7, any information submitted pursuant to this permit may be claimed as confidential by the submitter. If no claim is made at the time of submission, information may be made available to the public without further notice.

E. PENALTIES FOR VIOLATIONS OF PERMIT CONDITIONS

1. CRIMINAL

a. NEGLIGENT VIOLATIONS

The Act provides that any person who negligently violates permit conditions implementing Section 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to a fine of not less than \$2,500 nor more than \$25,000 per day of violation, or by imprisonment for not more than 1 year, or both.

b. KNOWING VIOLATIONS

The Act provides that any person who knowingly violates permit conditions implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to a fine of not less than \$5,000 nor more than \$50,000 per day of violation, or by imprisonment for not more than 3 years, or both.

c. KNOWING ENDANGERMENT

The Act provides that any person who knowingly violates permit conditions implementing Sections 301, 302, 303, 306, 307, 308, 318, or 405 of the Act and who knows at that time that he is placing another person in imminent danger of death or serious bodily injury is subject to a fine of not more than \$250,000, or by imprisonment for not more than 15 years, or both.

d. FALSE STATEMENTS

The Act provides that any person who knowingly makes any false material statement, representation, or certification in any application, record, report, plan, or other document filed or required to be maintained under the Act or who knowingly falsifies, tampers with, or renders inaccurate, any monitoring device or method required to be maintained under the Act, shall upon conviction, be punished by a fine of not more than \$10,000, or by imprisonment for not more than 2 years, or by both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment shall be by a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than 4 years, or by both. (See Section 309.c.4 of the Clean Water Act)

2. CIVIL PENALTIES

The Act provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to a civil penalty not to exceed \$27,500 per day for each violation.

3. ADMINISTRATIVE PENALTIES

The Act provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to an administrative penalty, as follows:

a. CLASS I PENALTY

Not to exceed \$11,000 per violation nor shall the maximum amount exceed \$27,500.

b. CLASS II PENALTY

Not to exceed \$11,000 per day for each day during which the violation continues nor shall the maximum amount exceed \$137,500.

F. DEFINITIONS

All definitions contained in Section 502 of the Act shall apply to this permit and are incorporated herein by reference. Unless otherwise specified in this permit, additional definitions of words or phrases used in this permit are as follows:

1. ACT means the Clean Water Act (33 U.S.C. 1251 et. seq.), as amended.
2. ADMINISTRATOR means the Administrator of the U.S. Environmental Protection Agency.
3. APPLICABLE EFFLUENT STANDARDS AND LIMITATIONS means all state and Federal effluent standards and limitations to which a discharge is subject under the Act, including, but not limited to, effluent limitations, standards or performance, toxic effluent standards and prohibitions, and pretreatment standards.
4. APPLICABLE WATER QUALITY STANDARDS means all water quality standards to which a discharge is subject under the Act.
5. BYPASS means the intentional diversion of waste streams from any portion of a treatment facility.
6. DAILY DISCHARGE means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in terms of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the sampling day. For pollutants with limitations expressed in other units of measurement, the "daily discharge" is calculated as the average measurement of the pollutant over the sampling day. "Daily discharge" determination of concentration made using a composite sample shall be the concentration of the composite sample. When grab samples are used, the "daily discharge" determination of concentration shall be arithmetic average (weighted by flow value) of all samples collected during that sampling day.
7. DAILY MAXIMUM discharge limitation means the highest allowable "daily discharge" during the calendar month.
8. DIRECTOR means the U.S. Environmental Protection Agency Regional Administrator or an authorized representative.
9. ENVIRONMENTAL PROTECTION AGENCY means the U.S. Environmental Protection Agency.
10. GRAB SAMPLE means an individual sample collected in less than 15 minutes.
11. INDUSTRIAL USER means a nondomestic discharger, as identified in 40 CFR 403, introducing pollutants to a publicly owned treatment works.
12. MONTHLY AVERAGE (also known as DAILY AVERAGE) discharge limitations means the highest allowable average of "daily discharge(s)" over a calendar month, calculated as the sum of all "daily discharge(s)" measured during a calendar month divided by the number of "daily discharge(s)" measured during that month. When the permit establishes daily average concentration effluent limitations or conditions, the daily average concentration means the arithmetic average (weighted by flow) of all "daily discharge(s)" of concentration determined during the calendar month where C = daily concentration, F = daily flow, and n = number of daily samples; daily average discharge =

$$\frac{C_1F_1 + C_2F_2 + \dots + C_nF_n}{F_1 + F_2 + \dots + F_n}$$
13. NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under Sections 307, 318, 402, and 405 of the Act.
14. SEVERE PROPERTY DAMAGE means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
15. SEWAGE SLUDGE means the solids, residues, and precipitates separated from or created in sewage by the unit processes of a publicly owned treatment works. Sewage as used in this definition means any wastes, including wastes from humans, households, commercial establishments, industries, and storm water runoff, that are discharged to or

otherwise enter a publicly owned treatment works.

16. TREATMENT WORKS means any devices and systems used in the storage, treatment, recycling and reclamation of municipal sewage and industrial wastes of a liquid nature to implement Section 201 of the Act, or necessary to recycle or reuse water at the most economical cost over the estimated life of the works, including intercepting sewers, sewage collection systems, pumping, power and other equipment, and their appurtenances, extension, improvement, remodeling, additions, and alterations thereof.
17. UPSET means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
18. FOR FECAL COLIFORM BACTERIA, a sample consists of one effluent grab portion collected during a 24-hour period at peak loads.
19. The term "MGD" shall mean million gallons per day.
20. The term "mg/L" shall mean milligrams per liter or parts per million (ppm).
21. The term "µg/L" shall mean micrograms per liter or parts per billion (ppb).
22. MUNICIPAL TERMS
- a. 7-DAY AVERAGE or WEEKLY AVERAGE, other than for fecal coliform bacteria, is the arithmetic mean of the daily values for all effluent samples collected during a calendar week, calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week. The 7-day average for fecal coliform bacteria is the geometric mean of the values for all effluent samples collected during a calendar week.
- b. 30-DAY AVERAGE or MONTHLY AVERAGE, other than for fecal coliform bacteria, is the arithmetic mean of the daily values for all effluent samples collected during a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month. The 30-day average for fecal coliform bacteria is the geometric mean of the values for all effluent samples collected during a calendar month.
- c. 24-HOUR COMPOSITE SAMPLE consists of a minimum of 12 effluent portions collected at equal time intervals over the 24-hour period and combined proportional to flow or a sample collected at frequent intervals proportional to flow over the 24-hour period.
- d. 12-HOUR COMPOSITE SAMPLE consists of 12 effluent portions collected no closer together than one hour and composited according to flow. The daily sampling intervals shall include the highest flow periods.
- e. 6-HOUR COMPOSITE SAMPLE consists of six effluent portions collected no closer together than one hour (with the first portion collected no earlier than 10:00 a.m.) and composited according to flow.
- f. 3-HOUR COMPOSITE SAMPLE consists of three effluent portions collected no closer together than one hour (with the first portion collected no earlier than 10:00 a.m.) and composited according to flow.

SEWAGE SLUDGE REQUIREMENTS

INSTRUCTIONS TO PERMITTEES

Select only those Elements and Sections which apply to your sludge reuse or disposal practice.

If your facility utilizes more than one type of disposal or reuse method (for example, Element I and Element II apply) or the quality of your sludge varies (for example, Section II and Section III of Element I apply) use a separate Discharge Monitoring Report (DMR) for each Section that is applicable.

The sludge DMRs shall be due by February 19th of each year and shall cover the previous January through December time period.

The sludge conditions do not apply to wastewater treatment lagoons where sludge is not wasted for final reuse/disposal. If the sludge is not removed, the permittee shall indicate on the DMR "No Discharge".

ELEMENT 1 - LAND APPLICATION

- SECTION I: Page 2 - Requirements Applying to All Sewage Sludge Land Application
- SECTION II: Page 5 - Requirements Specific to Bulk Sewage Sludge for Application to the Land Meeting Class A or B Pathogen Reduction and the Cumulative Loading Rates in Table 2, or Class B Pathogen Reduction and the Pollutant Concentrations in Table 3
- SECTION III: Page 9 - Requirements Specific to Bulk Sewage Sludge Meeting Pollutant Concentrations in Table 3 and Class A Pathogen Reduction Requirements
- SECTION IV: Page 10 - Requirements Specific to Sludge Sold or Given Away in a Bag or Other Container for Application to the Land that does not Meet the Pollutant Concentrations in Table 3

ELEMENT 2 - SURFACE DISPOSAL

- SECTION I: Page 12 - Requirements Applying to All Sewage Sludge Surface Disposal
- SECTION II: Page 16 - Requirements Specific to Surface Disposal Sites Without a Liner and Leachate Collection System
- SECTION III: Page 18 - Requirements Specific to Surface Disposal Sites With a Liner and Leachate Collection System

ELEMENT 3 - MUNICIPAL SOLID WASTE LANDFILL DISPOSAL

- SECTION I: Page 19 - Requirements Applying to All Municipal Solid Waste Landfill Disposal Activities

ELEMENT 1 - LAND APPLICATION

SECTION I. REQUIREMENTS APPLYING TO ALL SEWAGE SLUDGE LAND APPLICATION

A. General Requirements

1. The permittee shall handle and dispose of sewage sludge in accordance with Section 405 of the Clean Water Act and all other applicable Federal regulations to protect public health and the environment from any reasonably anticipated adverse effects due to any toxic pollutants which may be present in the sludge.
2. If requirements for sludge management practices or pollutant criteria become more stringent than the sludge pollutant limits or acceptable management practices in this permit, or control a pollutant not listed in this permit, this permit may be modified or revoked and reissued to conform to the requirements promulgated at Section 405(d)(2) of the Clean Water Act. If new limits for Molybdenum are promulgated prior to permit expiration, then those limits shall become directly enforceable.
3. In all cases, if the person (permit holder) who prepares the sewage sludge supplies the sewage sludge to another person for land application use or to the owner or lease holder of the land, the permit holder shall provide necessary information to the parties who receive the sludge to assure compliance with these regulations.
4. The permittee shall give prior notice to EPA (Chief, Permits Branch, Water Management Division, Mail Code 6W-P, EPA Region 6, 1445 Ross Avenue, Dallas, Texas 75202) of any planned changes in the sewage sludge disposal practice, in accordance with 40 CFR Part 122.41(l)(1)(iii). These changes may justify the application of permit conditions that are different from or absent in the existing permit. Change in the sludge use or disposal practice may be cause for modification of the permit in accordance with 40 CFR Part 122.62(a)(1).

B. Testing Requirements

1. Sewage sludge shall be tested once during the life of the permit within one year from the effective date of the permit in accordance with the method specified at 40 CFR 268, Appendix I (Toxicity Characteristic Leaching Procedure (TCLP)) or other approved methods. Sludge shall be tested after final treatment prior to leaving the POTW site. Sewage sludge determined to be a hazardous waste in accordance with 40 CFR Part 261, shall be handled according to RCRA standards for the disposal of hazardous waste in accordance with 40 CFR Part 262. The disposal of sewage sludge determined to be a hazardous waste, in other than a certified hazardous waste disposal facility shall be prohibited. The Information Management Section, telephone no. (214) 665-6750, and the appropriate state agency shall be notified of test failure within 24 hours. A written report shall be provided to this office within 7 days after failing the TCLP. The report will contain test results, certification that unauthorized disposal has not occurred and a summary of alternative disposal plans that comply with RCRA standards for the disposal of hazardous waste. The report shall be addressed to: Director, Multimedia Planning and Permitting Division, EPA Region 6, Mail Code 6PD, 1445 Ross Avenue, Dallas, Texas 75202. A copy of this report shall be sent to the Chief, Water Enforcement Branch, Compliance Assurance and Enforcement Division, Mail Code 6EN-W, at the same street address.
2. Sewage sludge shall not be applied to the land if the concentration of the pollutants exceed the pollutant concentration criteria in Table 1. The frequency of testing for pollutants in Table 1 is found in Element 1, Section I.C.

TABLE 1

Ceiling Concentration

<u>Pollutant</u>	<u>(milligrams per kilogram)*</u>
Arsenic	75
Cadmium	85
Copper	4300
Lead	840
Mercury	57
Molybdenum	75
Nickel	420
PCBs	49
Selenium	100
Zinc	7500

* Dry weight basis

3. Pathogen Control

All sewage sludge that is applied to agricultural land, forest, a public contact site, or a reclamation site shall be treated by either the Class A or Class B pathogen requirements. Sewage sludge that is applied to a lawn or home garden shall be treated by the Class A pathogen requirements. Sewage sludge that is sold or given away in a bag shall be treated by Class A pathogen requirements.

- a. Six alternatives are available to demonstrate compliance with Class A sewage sludge. All 6 options require either the density of fecal coliform in the sewage sludge be less than 1000 Most Probable Number (MPN) per gram of total solids (dry weight basis), or the density of Salmonella sp. bacteria in the sewage sludge be less than three MPN per four grams of total solids (dry weight basis) at the time the sewage sludge is used or disposed; at the time the sewage sludge is prepared for sale or given away in a bag or other container for application to the land. Below are the additional requirements necessary to meet the definition of a Class A sludge. Alternatives 5 and 6 are not authorized to demonstrate compliance with Class A sewage sludge in Texas permits.

Alternative 1 - The temperature of the sewage sludge that is used or disposed shall be maintained at a specific value for a period of time. See 503.32(a)(3)(ii) for specific information. This alternative is not applicable to composting.

Alternative 2 - The pH of the sewage sludge that is used or disposed shall be raised to above 12 and shall remain above 12 for 72 hours. The pH shall be defined as the logarithm of the reciprocal of the hydrogen ion concentration measured at 25°C or measured at another temperature and then converted to an equivalent value at 25°C.

The temperature of the sewage sludge shall be above 52 degrees Celsius for 12 hours or longer during the period that the pH of the sewage sludge is above 12.

At the end of the 72 hour period during which the pH of the sewage sludge is above 12, the sewage sludge shall be air dried to achieve a percent solids in the sewage sludge greater than 50 percent.

Alternative 3 - The sewage sludge shall be analyzed for enteric viruses prior to pathogen treatment. The limit for enteric viruses is one Plaque-forming Unit per four grams of total solids (dry weight basis) either before or following pathogen treatment. See 503.32(a)(5)(ii) for specific information. The sewage sludge shall be analyzed for viable helminth ova prior to pathogen treatment. The limit for viable helminth ova is less than one per four grams of total solids (dry weight basis) either before or following pathogen treatment. See 503.32(a)(5)(iii) for specific information.

Alternative 4 - The density of enteric viruses in the sewage sludge shall be less than one Plaque-forming Unit per four grams of total solids (dry weight basis) at the time the sewage sludge is used or disposed or at the time the sludge is prepared for sale or give away in a bag or other container for application to the land.

The density of viable helminth ova in the sewage sludge shall be less than one per four grams of total solids (dry weight basis) at the time the sewage sludge is used or disposed or at the time the sewage sludge is prepared for sale or give away in a bag or other container for application to the land.

Alternative 5 - Sewage sludge shall be treated by one of the Processes to Further Reduce Pathogens (PFRP) described in 503 Appendix B. PFRPs include composting, heat drying, heat treatment, and thermophilic aerobic digestion.

Alternative 6 - Sewage sludge shall be treated by a process that is equivalent to a Process to Further Reduce Pathogens, if individually approved by the Pathogen Equivalency Committee representing the EPA.

- b. Three alternatives are available to demonstrate compliance with Class B sewage sludge. Alternatives 2 and 3 are not authorized to demonstrate compliance with Class B sewage sludge in Texas permits.

Alternative 1 - (i) Seven representative samples of the sewage sludge that is used shall be collected for one monitoring episode at the time the sewage sludge is used or disposed.

(ii) The geometric mean of the density of fecal coliform in the samples collected shall be less than either 2,000,000 MPN per gram of total solids (dry weight basis) or 2,000,000 Colony Forming Units per gram of total solids (dry weight basis).

Alternative 2 - Sewage sludge shall be treated in one of the Processes to significantly Reduce Pathogens described in 503 Appendix B.

Alternative 3 - Sewage sludge shall be treated in a process that is equivalent to a PSRP, if individually approved by the Pathogen Equivalency Committee representing the EPA.

In addition, the following site restrictions must be met if Class B sludge is land applied:

- i. Food crops with harvested parts that touch the sewage sludge/soil mixture and are totally above the land surface shall not be harvested for 14 months after application of sewage sludge.
- ii. Food crops with harvested parts below the surface of the land shall not be harvested for 20 months after application of sewage sludge when the sewage sludge remains on the land surface for 4 months or longer prior to incorporation into the soil.
- iii. Food crops with harvested parts below the surface of the land shall not be harvested for 38 months after application of sewage sludge when the sewage sludge remains on the land surface for less than 4 months prior to incorporation into the soil.
- iv. Food crops, feed crops, and fiber crops shall not be harvested for 30 days after application of sewage sludge.
- v. Animals shall not be grazed on the land for 30 days after application of sewage sludge.
- vi. Turf grown on land where sewage sludge is applied shall not be harvested for 1 year after application of the sewage sludge when the harvested turf is placed on either land with a high potential for public exposure or a lawn, unless otherwise specified by the permitting authority.
- vii. Public access to land with a high potential for public exposure shall be restricted for 1 year after application of sewage sludge.

- viii. Public access to land with a low potential for public exposure shall be restricted for 30 days after application of sewage sludge.

4. Vector Attraction Reduction Requirements

All bulk sewage sludge that is applied to agricultural land, forest, a public contact site, or a reclamation site shall be treated by one of the following alternatives 1 through 10 for Vector Attraction Reduction. If bulk sewage sludge is applied to a home garden, or bagged sewage sludge is applied to the land, only alternative 1 through alternative 8 shall be used.

- Alternative 1 - The mass of volatile solids in the sewage sludge shall be reduced by a minimum of 38 percent.
- Alternative 2 - If Alternative 1 cannot be met for an anaerobically digested sludge, demonstration can be made by digesting a portion of the previously digested sludge anaerobically in the laboratory in a bench-scale unit for 40 additional days at a temperature between 30 and 37 degrees Celsius. Volatile solids must be reduced by less than 17 percent to demonstrate compliance.
- Alternative 3 - If Alternative 1 cannot be met for an aerobically digested sludge, demonstration can be made by digesting a portion of the previously digested sludge with a percent solids of two percent or less aerobically in the laboratory in a bench-scale unit for 30 additional days at 20 degrees Celsius. Volatile solids must be reduced by less than 15 percent to demonstrate compliance.
- Alternative 4 - The specific oxygen uptake rate (SOUR) for sewage sludge treated in an aerobic process shall be equal to or less than 1.5 milligrams of oxygen per hour per gram of total solids (dry weight basis) at a temperature of 20 degrees Celsius.
- Alternative 5 - Sewage sludge shall be treated in an aerobic process for 14 days or longer. During that time, the temperature of the sewage sludge shall be higher than 40 degrees Celsius and the average temperature of the sewage sludge shall be higher than 45 degrees Celsius.
- Alternative 6 - The pH of sewage sludge shall be raised to 12 or higher by alkali addition and, without the addition of more alkali shall remain at 12 or higher for two hours and then at 11.5 or higher for an additional 22 hours at the time the sewage sludge is used or disposed; at the time the sewage sludge is prepared for sale or given away in a bag or other container.
- Alternative 7 - The percent solids of sewage sludge that does not contain unstabilized solids generated in a primary wastewater treatment process shall be equal to or greater than 75 percent based on the moisture content and total solids prior to mixing with other materials at the time the sludge is used. Unstabilized solids are defined as organic materials in sewage sludge that have not been treated in either an aerobic or anaerobic treatment process.
- Alternative 8 - The percent solids of sewage sludge that contains unstabilized solids generated in a primary wastewater treatment process shall be equal to or greater than 90 percent based on the moisture content and total solids prior to mixing with other materials at the time the sludge is used. Unstabilized solids are defined as organic materials in sewage sludge that have not been treated in either an aerobic or anaerobic treatment process.
- Alternative 9 -
 - (i) Sewage sludge shall be injected below the surface of the land.
 - (ii) No significant amount of the sewage sludge shall be present on the land surface within one hour after the sewage sludge is injected.
 - (iii) When sewage sludge that is injected below the surface of the land is Class A with respect to pathogens, the sewage sludge shall be injected below the land surface

within eight hours after being discharged from the pathogen treatment process.

- Alternative 10 -**
- (i) Sewage sludge applied to the land surface or placed on a surface disposal site shall be incorporated into the soil within six hours after application to or placement on the land.
 - (ii) When sewage sludge that is incorporated into the soil is Class A with respect to pathogens, the sewage sludge shall be applied to or placed on the land within eight hours after being discharged from the pathogen treatment process.

C. Monitoring Requirements

Toxicity Characteristic Leaching Procedure (TCLP) Test - Once/Permit Life, performed within one year from the effective date of the permit

PCBs - Once/Year

All other pollutants shall be monitored at the frequency shown below:

<u>Amount of sewage sludge*</u> <u>(metric tons per 365 day period)</u>	<u>Frequency</u>
$0 \leq \text{Sludge} < 290$	Once/Year
$290 \leq \text{Sludge} < 1,500$	Once/Quarter
$1,500 \leq \text{Sludge} < 15,000$	Once/Two Months
$15,000 \leq \text{Sludge}$	Once/Month

- * Either the amount of bulk sewage sludge applied to the land or the amount of sewage sludge received by a person who prepares sewage sludge that is sold or given away in a bag or other container for application to the land (dry weight basis).

Representative samples of sewage sludge shall be collected and analyzed in accordance with the methods referenced in 40 CFR 503.8(b).

SECTION II. REQUIREMENTS SPECIFIC TO BULK SEWAGE SLUDGE FOR APPLICATION TO THE LAND MEETING CLASS A or B PATHOGEN REDUCTION AND THE CUMULATIVE LOADING RATES IN TABLE 2. OR CLASS B PATHOGEN REDUCTION AND THE POLLUTANT CONCENTRATIONS IN TABLE 3

For those permittees meeting Class A or B pathogen reduction requirements and that meet the cumulative loading rates in Table 2 below, or the Class B pathogen reduction requirements and contain concentrations of pollutants below those listed in Table 3 found in Element I, Section III, the following conditions apply:

1. Pollutant Limits

Table 2

<u>Pollutant</u>	<u>Cumulative Pollutant Loading Rate</u> <u>(kilograms per hectare)</u>
Arsenic	41
Cadmium	39
Copper	1500

Lead	300
Mercury	17
Molybdenum	Report
Nickel	420
Selenium	100
Zinc	2800

2. Pathogen Control

All bulk sewage sludge that is applied to agricultural land, forest, a public contact site, a reclamation site, or lawn or home garden shall be treated by either Class A or Class B pathogen reduction requirements as defined above in Element I, Section I.B.3.

3. Management Practices

- a. Bulk sewage sludge shall not be applied to agricultural land, forest, a public contact site, or a reclamation site that is flooded, frozen, or snow-covered so that the bulk sewage sludge enters a wetland or other waters of the U.S., as defined in 40 CFR 122.2, except as provided in a permit issued pursuant to section 404 of the CWA.
- b. Bulk sewage sludge shall not be applied within 10 meters of a water of the U.S.
- c. Bulk sewage sludge shall be applied at or below the agronomic rate in accordance with recommendations from the following references:
 - i. STANDARDS 1992, Standards, Engineering Practices and Data, 39th Edition (1992) American Society of Agricultural Engineers, 2950 Niles Road, St. Joseph, MI 49085-9659.
 - ii. National Engineering Handbook Part 651, Agricultural Waste Management Field Handbook (1992), P.O. Box 2890, Washington, D.C. 20013.
 - iii. Recommendations of local extension services or Soil Conservation Services.
 - iv. Recommendations of a major University's Agronomic Department.
- d. An information sheet shall be provided to the person who receives bulk sewage sludge sold or given away. The information sheet shall contain the following information:
 - i. The name and address of the person who prepared the sewage sludge that is sold or given away in a bag or other container for application to the land.
 - ii. A statement that application of the sewage sludge to the land is prohibited except in accordance with the instructions on the label or information sheet.
 - iii. The annual whole sludge application rate for the sewage sludge that does not cause any of the cumulative pollutant loading rates in Table 2 above to be exceeded, unless the pollutant concentrations in Table 3 found in Element I, Section III below are met.

4. Notification requirements

- a. If bulk sewage sludge is applied to land in a State other than the State in which the sludge is prepared, written notice shall be provided prior to the initial land application to the permitting authority for the State in which the bulk sewage sludge is proposed to be applied. The notice shall include:
 - i. The location, by either street address or latitude and longitude, of each land application site.
 - ii. The approximate time period bulk sewage sludge will be applied to the site.

- iii. The name, address, telephone number, and National Pollutant Discharge Elimination System permit number (if appropriate) for the person who prepares the bulk sewage sludge.
- iv. The name, address, telephone number, and National Pollutant Discharge Elimination System permit number (if appropriate) for the person who will apply the bulk sewage sludge.

- b. The permittee shall give 60 days prior notice to the Director of any change planned in the sewage sludge practice. Any change shall include any planned physical alterations or additions to the permitted treatment works, changes in the permittee's sludge use or disposal practice, and also alterations, additions, or deletions of disposal sites. These changes may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional disposal sites not reported during the permit application process or absent in the existing permit. Change in the sludge use or disposal practice may be cause for modification of the permit in accordance with 40 CFR 122.62(a)(1).
- c. The permittee shall provide the location of all new sludge disposal/use sites where previously undisturbed ground is proposed for disturbance to the State Historical Commission within 90 days of the effective date of this permit. In addition, the permittee shall provide the location of any new disposal/use site to the State Historical Commission prior to use of the site.

The permittee shall within 30 days after notification by the State Historical Commission that a specific sludge disposal/use area will adversely effect a National Historic Site, cease use of such area.

5. Recordkeeping Requirements - The sludge documents will be retained on site at the same location as other NPDES records.

The person who prepares bulk sewage sludge or a sewage sludge material shall develop the following information and shall retain the information for five years. If the permittee supplies the sludge to another person who land applies the sludge, the permittee shall notify the land applier of the requirements for recordkeeping found in 40 CFR 503.17 for persons who land apply.

- a. The concentration (mg/Kg) in the sludge of each pollutant listed in Table 3 found in Element I, Section III and the applicable pollutant concentration criteria (mg/Kg), or the applicable cumulative pollutant loading rate and the applicable cumulative pollutant loading rate limit (kg/ha) listed in Table 2 above.
- b. A description of how the pathogen reduction requirements are met (including site restrictions for Class B sludges, if applicable).
- c. A description of how the vector attraction reduction requirements are met.
- d. A description of how the management practices listed above in Section II.3 are being met.
- e. The recommended agronomic loading rate from the references listed in Section II.3.c. above, as well as the actual agronomic loading rate shall be retained.
- f. A description of how the site restrictions in 40 CFR Part 503.32(b)(5) are met for each site on which Class B bulk sewage sludge is applied.
- g. The following certification statement:

"I certify, under penalty of law, that the information that will be used to determine compliance with the management practices in §503.14 have been met for each site on which bulk sewage sludge is applied. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information

used to determine that the management practices have been met. I am aware that there are significant penalties for false certification including fine and imprisonment."

- h. A certification statement that all applicable requirements (specifically listed) have been met, and that the permittee understands that there are significant penalties for false certification including fine and imprisonment. See 40 CFR 503.17(a)(4)(i)(B) or 40 CFR Part 503.17(a)(5)(i)(B) as applicable to the permittees sludge treatment activities.
- i. The permittee shall maintain information that describes future geographical areas where sludge may be land applied.
- j. The permittee shall maintain information identifying site selection criteria regarding land application sites not identified at the time of permit application submission.
- k. The permittee shall maintain information regarding how future land application sites will be managed.

The person who prepares bulk sewage sludge or a sewage sludge material shall develop the following information and shall retain the information indefinitely. If the permittee supplies the sludge to another person who land applies the sludge, the permittee shall notify the land applier of the requirements for recordkeeping found in 40 CFR 503.17 for persons who land apply.

- a. The location, by either street address or latitude and longitude, of each site on which sludge is applied.
- b. The number of hectares in each site on which bulk sludge is applied.
- c. The date and time sludge is applied to each site.
- d. The cumulative amount of each pollutant in kilograms/hectare listed in Table 2 applied to each site.
- e. The total amount of sludge applied to each site in metric tons.
- f. The following certification statement:

"I certify, under penalty of law, that the information that will be used to determine compliance with the requirements to obtain information in §503.12(c)(2) have been met for each site on which bulk sewage sludge is applied. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the requirements to obtain information have been met. I am aware that there are significant penalties for false certification including fine and imprisonment."

- g. A description of how the requirements to obtain information in §503.12(c)(2) are met.

6. Reporting Requirements - The permittee shall report annually on the DMR the following information:

- a. Pollutant Table (2 or 3) appropriate for permittee's land application practices.
- b. The frequency of monitoring listed in Element 1, Section I.C. which applies to the permittee.
- c. Toxicity Characteristic Leaching Procedure (TCLP) results (Pass/Fail).
- d. The concentration (mg/Kg) in the sludge of each pollutant listed in Table 1 (defined as a monthly average) as well as the applicable pollutant concentration criteria (mg/Kg) listed in Table 3 found in Element 1, Section III, or the applicable pollutant loading rate limit (kg/ha) listed in Table 2 above if it exceeds 90% of the limit.
- e. Level of pathogen reduction achieved (Class A or Class B).

- f. Alternative used as listed in Section I.B.3.(a. or b.). Alternatives describe how the pathogen reduction requirements are met. If Class B sludge, include information on how site restrictions were met in the DMR comment section or attach a separate sheet to the DMR.
- g. Vector attraction reduction alternative used as listed in Section I.B.4.
- h. Annual sludge production in dry metric tons/year.
- i. Amount of sludge land applied in dry metric tons/year.
- j. Amount of sludge transported interstate in dry metric tons/year.
- k. The certification statement listed in 503.17(a)(4)(i)(B) or 503.17(a)(5)(i)(B) whichever applies to the permittees sludge treatment activities shall be attached to the DMR.
- l. When the amount of any pollutant applied to the land exceeds 90% of the cumulative pollutant loading rate for that pollutant, as described in Table 2, the permittee shall report the following information as an attachment to the DMR.
 - i. The location, by either street address or latitude and longitude.
 - ii. The number of hectares in each site on which bulk sewage sludge is applied.
 - iii. The date and time bulk sewage sludge is applied to each site.
 - iv. The cumulative amount of each pollutant (i.e., kilograms/hectare) listed in Table 2 in the bulk sewage sludge applied to each site.
 - v. The amount of sewage sludge (i.e., metric tons) applied to each site.
 - vi. The following certification statement:

 "I certify, under penalty of law, that the information that will be used to determine compliance with the requirements to obtain information in 40 CFR 503.12(e)(2) have been met for each site on which bulk sewage sludge is applied. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the requirements to obtain information have been met. I am aware that there are significant penalties for false certification including fine and imprisonment."
 - vii. A description of how the requirements to obtain information in 40 CFR 503.12(e)(2) are met.

SECTION III. REQUIREMENTS SPECIFIC TO BULK OR BAGGED SEWAGE SLUDGE MEETING POLLUTANT CONCENTRATIONS IN TABLE 3 AND CLASS A PATHOGEN REDUCTION REQUIREMENTS

For those permittees with sludge that contains concentrations of pollutants below those pollutant limits listed in Table 3 for bulk or bagged (containerized) sewage sludge and also meet the Class A pathogen reduction requirements, the following conditions apply (Note: All bagged sewage sludge must be treated by Class A pathogen reduction requirements.):

1. Pollutant limits - The concentration of the pollutants in the municipal sewage sludge is at or below the values listed.

Table 3

Pollutant

Monthly Average Concentration
(milligrams per
kilogram)*

Arsenic	41
Cadmium	39
Copper	1500
Lead	300
Mercury	17
Molybdenum	Report
Nickel	420
Selenium	100
Zinc	2800

* Dry weight basis

2. Pathogen Control

All bulk sewage sludge that is applied to agricultural land, forest, a public contact site, a reclamation site, or lawn or home garden shall be treated by the Class A pathogen reduction requirements as defined above in Element I, Section I.B.3. All bagged sewage sludge must be treated by Class A pathogen reduction requirements.

3. Management Practices - None.

4. Notification Requirements - None.

5. Recordkeeping Requirements - The permittee shall develop the following information and shall retain the information for five years. The sludge documents will be retained on site at the same location as other NPDES records.

- a. The concentration (mg/Kg) in the sludge of each pollutant listed in Table 3 and the applicable pollutant concentration criteria listed in Table 3.
- b. A certification statement that all applicable requirements (specifically listed) have been met, and that the permittee understands that there are significant penalties for false certification including fine and imprisonment. See 503.17(a)(1)(ii) or 503.17(a)(3)(i)(B), whichever applies to the permittees sludge treatment activities.
- c. A description of how the Class A pathogen reduction requirements are met.
- d. A description of how the vector attraction reduction requirements are met.

6. Reporting Requirements - The permittee shall report annually on the DMR the following information:

- a. Pollutant Table 3 appropriate for permittee's land application practices.
- b. The frequency of monitoring listed in Element I, Section I.C. which applies to the permittee.
- c. Toxicity Characteristic Leaching Procedure (TCLP) results. (Pass/Fail).
- d. The concentration (mg/Kg) in the sludge of each pollutant listed in Table 1 (defined as a monthly average) found in Element I, Section I. In addition, the applicable pollutant concentration criteria listed in Table 3 should be included on the DMR.
- e. Pathogen reduction Alternative used for Class A bagged or bulk sludge as listed in Section I.B.3.a.
- f. Vector attraction reduction Alternative used as listed in Section I.B.4.
- g. Annual sludge production in dry metric tons/year.
- h. Amount of sludge land applied in dry metric tons/year.

- i. Amount of sludge transported interstate in dry metric tons/year.
- j. The certification statement listed in 503.17(a)(1)(ii) or 503.17(a)(3)(i)(B), whichever applies to the permittees sludge treatment activities, shall be attached to the DMR.

SECTION IV. REQUIREMENTS SPECIFIC TO SLUDGE SOLD OR GIVEN AWAY IN A BAG OR OTHER CONTAINER FOR APPLICATION TO THE LAND THAT DOES NOT MEET THE MINIMUM POLLUTANT CONCENTRATIONS

1. Pollutant Limits

Table 4

<u>Pollutant</u>	<u>Annual Pollutant Loading Rate</u> <u>(kilograms per hectare per 365 day</u> <u>period)</u>
Arsenic	2
Cadmium	1.9
Copper	75
Lead	15
Mercury	0.85
Molybdenum	Report
Nickel	21
Selenium	5
Zinc	140

2. Pathogen Control

All sewage sludge that is sold or given away in a bag or other container for application to the land shall be treated by the Class A pathogen requirements as defined in Section I.B.3.a.

3. Management Practices

Either a label shall be affixed to the bag or other container in which sewage sludge that is sold or given away for application to the land, or an information sheet shall be provided to the person who receives sewage sludge sold or given away in an other container for application to the land. The label or information sheet shall contain the following information:

- a. The name and address of the person who prepared the sewage sludge that is sold or given away in a bag or other container for application to the land.
- b. A statement that application of the sewage sludge to the land is prohibited except in accordance with the instructions on the label or information sheet.
- c. The annual whole sludge application rate for the sewage sludge that will not cause any of the annual pollutant loading rates in Table 4 above to be exceeded.

4. Notification Requirements - None.

5. Recordkeeping Requirements - The sludge documents will be retained on site at the same location as other NPDES records.

The person who prepares sewage sludge or a sewage sludge material shall develop the following information and shall

retain the information for five years.

- a. The concentration in the sludge of each pollutant listed above in found in Element 1, Section I, Table 1.
- b. The following certification statement found in 503.17(a)(6)(iii).

"I certify, under penalty of law, that the information that will be used to determine compliance with the management practices in §503.14(e), the Class A pathogen requirement in §503.32(a), and the vector attraction reduction requirement in (insert vector attraction reduction option) have been met. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the management practices, pathogen requirements, and vector attraction reduction requirements have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment".
- c. A description of how the Class A pathogen reduction requirements are met.
- d. A description of how the vector attraction reduction requirements are met.
- e. The annual whole sludge application rate for the sewage sludge that does not cause the annual pollutant loading rates in Table 4 to be exceeded. See Appendix A to Part 503 - Procedure to Determine the Annual Whole Sludge Application Rate for a Sewage Sludge.

6. Reporting Requirements - The permittee shall report annually on the DMR the following information:

- a. List Pollutant Table 4 appropriate for permittee's land application practices.
- b. The frequency of monitoring listed in Element 1, Section I.C. which applies to the permittee.
- c. Toxicity Characteristic Leaching Procedure (TCLP) results (Pass/Fail).
- d. The concentration (mg/Kg) in the sludge of each pollutant listed above in Table 1 (defined as a monthly average) found in Element 1, Section I.
- e. Class A pathogen reduction Alternative used as listed in Section I.B.3.a. Alternatives describe how the pathogen reduction requirements are met.
- f. Vector attraction reduction Alternative used as listed in Section I.B.4.
- g. Annual sludge production in dry metric tons/year.
- h. Amount of sludge land applied in dry metric tons/year.
- i. Amount of sludge transported interstate in dry metric tons/year.
- j. The following certification statement found in § 503.17(a)(6)(iii) shall be attached to the DMR.

"I certify, under penalty of law, that the information that will be used to determine compliance with the management practice in §503.14(e), the Class A pathogen requirement in §503.32(a), and the vector attraction reduction requirement (insert appropriate option) have been met. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel gather and evaluate the information used to determine that the management practice, pathogen requirements, and vector attraction reduction requirements have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment."

ELEMENT 2- SURFACE DISPOSAL

SECTION 1. REQUIREMENTS APPLYING TO ALL SEWAGE SLUDGE SURFACE DISPOSAL

A. General Requirements

1. The permittee shall handle and dispose of sewage sludge in accordance with Section 405 of the Clean Water Act and all other applicable Federal regulations to protect public health and the environment from any reasonably anticipated adverse effects due to any toxic pollutants which may be present.
2. If requirements for sludge management practices or pollutant criteria become more stringent than the sludge pollutant limits or acceptable management practices in this permit, or control a pollutant not listed in this permit, this permit may be modified or revoked and reissued to conform to the requirements promulgated at Section 405(d)(2) of the Clean Water Act.
3. In all cases, if the person (permit holder) who prepares the sewage sludge supplies the sewage sludge to another person (owner or operator of a sewage sludge unit) for disposal in a surface disposal site, the permit holder shall provide all necessary information to the parties who receive the sludge to assure compliance with these regulations.
4. The permittee shall give prior notice to EPA (Chief, Permits Branch, Water Management Division, Mail Code 6W-P, EPA Region 6, 1445 Ross Avenue, Dallas, Texas 75202) of any planned changes in the sewage sludge disposal practice, in accordance with 40 CFR Part 122.41(l)(1)(iii). These changes may justify the application of permit conditions that are different from or absent in the existing permit. Change in the sludge use or disposal practice may be cause for modification of the permit in accordance with 40 CFR Part 122.62(a)(1).
5. The permittee or owner/operator shall submit a written closure and post closure plan to the permitting authority 180 days prior to the closure date. The plan shall include the following information:
 - (a) A discussion of how the leachate collection system will be operated and maintained for three years after the surface disposal site closes if it has a liner and leachate collection system.
 - (b) A description of the system used to monitor continuously for methane gas in the air in any structures within the surface disposal site. The methane gas concentration shall not exceed 25% of the lower explosive limit for methane gas for three years after the sewage sludge unit closes. A description of the system used to monitor for methane gas in the air at the property line of the site shall be included. The methane gas concentration at the surface disposal site property line shall not exceed the lower explosive limit for methane gas for three years after the sewage sludge unit closes.
 - (c) A discussion of how public access to the surface disposal site will be restricted for three years after it closes.

B. Management Practices

1. An active sewage sludge unit located within 60 meters of a fault that has displacement in Holocene time shall close by March 22, 1994.
2. An active sewage sludge unit located in an unstable area shall close by March 22, 1994.
3. An active sewage sludge unit located in a wetland shall close by March 22, 1994.
4. Surface disposal shall not restrict the flow of the base 100-year flood.
5. The run-off collection system for an active sewage sludge unit shall have the capacity to handle run-off from a 25-year, 24-hour storm event.
6. A food crop, feed crop, or a fiber crop shall not be grown on a surface disposal site.

7. Animals shall not be grazed on a surface disposal site.
8. Public access shall be restricted on the active surface disposal site and for three years after the site closes.
9. Placement of sewage sludge shall not contaminate an aquifer. This shall be demonstrated through one of the following:
 - (a) Results of a ground-water monitoring program developed by a qualified ground-water scientist.
 - (b) A certification by a qualified ground-water scientist may be used to demonstrate that sewage sludge placed on an active sewage sludge unit does not contaminate an aquifer.
10. When a cover is placed on an active surface disposal site, the concentration of methane gas in air in any structure within the surface disposal site shall not exceed 25 percent of the lower explosive limit for methane gas during the period that the sewage sludge unit is active. The concentration of methane gas in air at the property line of the surface disposal site shall not exceed the lower explosive limit for methane gas during the period that the sewage sludge unit is active. Monitoring shall be continuous.

C. Testing Requirements

1. Sewage sludge shall be tested once during the life of the permit within one year from the effective date of the permit in accordance with the method specified at 40 CFR 268, Appendix I (Toxicity Characteristic Leaching Procedure (TCLP)) or other approved methods. Sludge shall be tested after final treatment prior to leaving the POTW site. Sewage sludge determined to be a hazardous waste in accordance with 40 CFR Part 261, shall be handled according to RCRA standards for the disposal of hazardous waste in accordance with 40 CFR Part 262. The disposal of sewage sludge determined to be a hazardous waste, in other than a certified hazardous waste disposal facility shall be prohibited. The Information Management Section, telephone no. (214) 665-6750, and the appropriate state agency shall be notified of test failure within 24 hours. A written report shall be provided to this office within 7 days after failing the TCLP. The report will contain test results, certification that unauthorized disposal has not occurred and a summary of alternative disposal plans that comply with RCRA standards for the disposal of hazardous waste. The report shall be addressed to: Director, Multimedia Planning and Permitting Division, EPA Region 6, Mail Code 6PD, 1445 Ross Avenue, Dallas, Texas 75202. A copy of this report shall be sent to the Chief, Water Enforcement Branch, Compliance Assurance and Enforcement Division, Mail Code 6EN-W, at the same street address.
2. Sewage sludge shall be tested at the frequency show below in Element 2, Section I.D. for PCBs. Any sludge exceeding a concentration of 50 mg/Kg shall not be surface disposed.
3. Pathogen Control

All sewage sludge that is disposed of in a surface disposal site shall be treated by either the Class A or Class B pathogen requirements unless sewage sludge is placed on an active surface disposal site and is covered with soil or other material at the end of each operating day. When reporting on the DMR, list pathogen reduction level attained as A, B, or C (daily cover). When reporting how compliance was met, list Alternative 1, 2, 3, 4, 5 or 6 for Class A, or Alternative Number 1, 2, 3, or 4 for Class B, on DMR.

(a) Six alternatives are available to demonstrate compliance with Class A sewage sludge. All 6 alternatives require either the density of fecal coliform in the sewage sludge be less than 1000 MPN per gram of total solids (dry weight basis), or the density of Salmonella sp. bacteria in the sewage sludge be less than three Most Probable Number per four grams of total solids (dry weight basis) at the time the sewage sludge is used or disposed; at the time the sewage sludge is prepared for sale or given away in a bag or other container for application to the land. Below are the additional requirements necessary to meet the definition of a Class A sludge. Alternatives 5 and 6 are not authorized to demonstrate compliance with Class A sewage sludge in Texas permits.

Alternative 1 - The temperature of the sewage sludge that is used or disposed shall be maintained at a specific value for a period of time. See 503.32(a)(3)(ii) for specific information. This alternative is not applicable to composting

Alternative 2 - The pH of the sewage sludge that is used or disposed shall be raised to above 12 and shall remain above 12 for 72 hours. The pH shall be defined as the logarithm of the reciprocal of the hydrogen ion concentration measured at 25°C or measured at another temperature and then converted to an equivalent value at 25°C.

The temperature of the sewage sludge shall be above 52 degrees Celsius for 12 hours or longer during the period that the pH of the sewage sludge is above 12.

At the end of the 72 hour period during which the pH of the sewage sludge is above 12, the sewage sludge shall be air dried to achieve a percent solids in the sewage sludge greater than 50 percent.

Alternative 3 - The sewage sludge shall be analyzed for enteric viruses prior to pathogen treatment. The limit for enteric viruses is one Plaque-forming Unit per four grams of total solids (dry weight basis) either before or following pathogen treatment. See 503.32(a)(5)(ii) for specific information. The sewage sludge shall be analyzed for viable helminth ova prior to pathogen treatment. The limit for viable helminth ova is less than one per four grams of total solids (dry weight basis) either before or following pathogen treatment. See 503.32(a)(5)(iii) for specific information.

Alternative 4 - The density of enteric viruses in the sewage sludge shall be less than one Plaque-forming Unit per four grams of total solids (dry weight basis) at the time the sewage sludge is used or disposed or at the time the sludge is prepared for sale or give away in a bag or other container for application to the land.

The density of viable helminth ova in the sewage sludge shall be less than one per four grams of total solids (dry weight basis) at the time the sewage sludge is used or disposed or at the time the sewage sludge is prepared for sale or give away in a bag or other container for application to the land.

Alternative 5 - Sewage sludge shall be treated by one of the Processes to Further Reduce Pathogens (PFRP) described in 503 Appendix B. PFRPs include composting, heat drying, heat treatment, and thermophilic aerobic digestion.

Alternative 6 - Sewage sludge shall be treated by a process that is equivalent to a Process to Further Reduce Pathogens, if individually approved by the Pathogen Equivalency Committee representing the EPA.

(b) Four alternatives are available to demonstrate compliance with Class B sewage sludge. Alternatives 2, 3, and 4 are not authorized to demonstrate compliance with Class B sewage sludge in Texas permits.

Alternative 1 - (i) Seven representative samples of the sewage sludge that is disposed shall be collected for one monitoring episode at the time the sewage sludge is used or disposed.

(ii) The geometric mean of the density of fecal coliform in the samples collected shall be less than either 2,000,000 Most Probable Number per gram of total solids (dry weight basis) or 2,000,000 Colony Forming Units per gram of total solids (dry weight basis).

Alternative 2 - Sewage sludge shall be treated in one of the Processes to significantly Reduce Pathogens described in 503 Appendix B.

Alternative 3 - Sewage sludge shall be treated in a process that is equivalent to a PSRP, if individually approved by the Pathogen Equivalency Committee representing the EPA.

Alternative 4 - Sewage sludge placed on an active surface disposal site is covered with soil or other material at the end of each operating day.

4. Vector Attraction Reduction Requirements

All sewage sludge that is disposed of in a surface disposal site shall be treated by one of the following alternatives 1 through 11 for Vector Attraction Reduction.

- Alternative 1 - The mass of volatile solids in the sewage sludge shall be reduced by a minimum of 38 percent.
- Alternative 2 - If Alternative 1 cannot be met for an anaerobically digested sludge, demonstration can be made by digesting a portion of the previously digested sludge anaerobically in the laboratory in a bench scale unit for 40 additional days at a temperature between 30 and 37 degrees Celsius. Volatile solids must be reduced by less than 17 percent to demonstrate compliance.
- Alternative 3 - If Alternative 1 cannot be met for an aerobically digested sludge, demonstration can be made by digesting a portion of the previously digested sludge with a percent solids of two percent or less aerobically in the laboratory in a bench-scale unit for 30 additional days at 20 degrees Celsius. Volatile solids must be reduced by less than 15 percent to demonstrate compliance.
- Alternative 4 - The specific oxygen uptake rate (SOUR) for sewage sludge treated in an aerobic process shall be equal to or less than 1.5 milligrams of oxygen per hour per gram of total solids (dry weight basis) at a temperature of 20 degrees Celsius.
- Alternative 5 - Sewage sludge shall be treated in an aerobic process for 14 days or longer. During that time, the temperature of the sewage sludge shall be higher than 40 degrees Celsius and the average temperature of the sewage sludge shall be higher than 45 degrees Celsius.
- Alternative 6 - The pH of sewage sludge shall be raised to 12 or higher by alkali addition and, without the addition of more alkali shall remain at 12 or higher for two hours and then at 11.5 or higher for an additional 22 hours at the time the sewage sludge is disposed.
- Alternative 7 - The percent solids of sewage sludge that does not contain unstabilized solids generated in a primary wastewater treatment process shall be equal to or greater than 75 percent based on the moisture content and total solids prior to mixing with other materials. Unstabilized solids are defined as organic materials in sewage sludge that have not been treated in either an aerobic or an anaerobic treatment process at the time the sewage sludge is disposed.
- Alternative 8 - The percent solids of sewage sludge that contains unstabilized solids generated in a primary wastewater treatment process shall be equal to or greater than 90 percent based on the moisture content and total solids prior to mixing with other materials at the time the sewage sludge is disposed. Unstabilized solids are defined as organic materials in sewage sludge that have not been treated in either an aerobic or an anaerobic treatment process.
-
- Alternative 9 -
- (i) Sewage sludge shall be injected below the surface of the land.
 - (ii) No significant amount of the sewage sludge shall be present on the land surface within one hour after the sewage sludge is injected.
 - (iii) When sewage sludge that is injected below the surface of the land is Class A with respect to pathogens, the sewage sludge shall be injected below the land surface within eight hours after being discharged from the pathogen treatment process.
- Alternative 10 -
- (i) Sewage sludge applied to the land surface or placed on a surface disposal site shall be incorporated into the soil within six hours after application to or placement on the land.
 - (ii) When sewage sludge that is incorporated into the soil is Class A with respect to pathogens, the sewage sludge shall be applied to or placed on the land within eight hours after being discharged from the pathogen treatment process.
- Alternative 11 - Sewage sludge placed on an active sewage sludge unit shall be covered with soil or other

material at the end of each operating day.

5. Methane Gas Control Within a Structure On Site

When cover is placed on an active surface disposal site, the methane gas concentration in the air in any structure shall not exceed 25% of the lower explosive limit (LEL) for methane gas during the period that the disposal site is active.

6. Methane Gas Control at Property Line

The concentration of methane gas in air at the property line of the surface disposal site shall not exceed the LEL for methane gas during the period that the disposal site is active.

D. Monitoring Requirements

Toxicity Characteristic Leaching Procedure (TCLP) Test - Once/Permit Life, performed within one year from the effective date of the permit

PCBs - Once/Year

Methane Gas in covered structures on site - Continuous

Methane Gas at property line - Continuous

All other pollutants shall be monitored at the frequency shown below:

Amount of sewage sludge*
(metric tons per 365 day period)

Frequency

0 ≤ Sludge < 290

Once/Year

290 ≤ Sludge < 1,500

Once/Quarter

1,500 ≤ Sludge < 15,000

Once/Two Months

15,000 ≤ Sludge

Once/Month

* Amount of sewage sludge placed on an active sewage sludge unit (dry weight basis).

Representative samples of sewage sludge shall be collected and analyzed in accordance with the methods referenced in 40 CFR 503.8(b).

SECTION II. REQUIREMENTS SPECIFIC TO SURFACE DISPOSAL SITES WITHOUT A LINER AND LEACHATE COLLECTION SYSTEM.

1. Pollutant limits - Sewage sludge shall not be applied to a surface disposal site if the concentration of the listed pollutants exceed the corresponding values based on the surface disposal site boundary to the property line distance:

TABLE 5

Unit boundary to property line distance (meters)	<u>Pollutant Concentrations*</u>			
	Arsenic (mg/kg)	Chromium (mg/kg)	Nickel (mg/kg)	PCB's (mg/kg)

0 to less than 25	30	200	210	49
25 to less than 50	34	220	240	49
50 to less than 75	39	260	270	49
75 to less than 100	46	300	320	49
100 to less than 125	53	360	390	49
125 to less than 150	62	450	420	49
≥ 150	73	600	420	49

* Dry weight basis

2. Management practices - Listed in Section I.B. above.

3. Notification requirements -

- a. The permittee shall assure that the owner of the surface disposal site provide written notification to the subsequent site owners that sewage sludge was placed on the land.
- b. The permittee shall provide the location of all new sludge disposal/use sites where previously undisturbed ground is proposed for disturbance to the State Historical Commission within 90 days of the effective date of this permit. In addition, the permittee shall provide the location of any new disposal/use site to the State Historical Commission prior to use of the site.

The permittee shall within 30 days after notification by the State Historical Commission that a specific sludge disposal/use area will adversely affect a National Historic Site, cease use of such area.

4. Recordkeeping requirements - The permittee shall develop the following information and shall retain the information for five years. The sludge documents will be retained on site at the same location as other NPDES records.

- a. The distance of the surface disposal site from the property line and the concentration (mg/Kg) in the sludge of each pollutant listed above in Table 5, as well as the applicable pollutant concentration criteria listed in Table 5.
- b. A certification statement that all applicable requirements (specifically listed) have been met, and that the permittee understands that there are significant penalties for false certification including fine and imprisonment. See 503.27(a)(1)(ii) or 503.27(n)(2)(ii) as applicable to the permittees sludge disposal activities.
- c. A description of how either the Class A or Class B pathogen reduction requirements are met, or whether sewage sludge placed on a surface disposal site is covered with soil or other material at the end of each operating day.
- d. A description of how the vector attraction reduction requirements are met.
- e. Results of a groundwater monitoring program developed by a qualified ground-water scientist, or a certification by a qualified groundwater scientist may be used to demonstrate that sewage sludge placed on an active sewage sludge unit does not contaminate an aquifer. A qualified groundwater scientist is an individual with a baccalaureate or post graduate degree in the natural sciences or engineering who has sufficient training and experience in groundwater hydrology and related fields, as may be demonstrated by State registration, professional certification or completion of accredited university programs, to make sound professional judgments regarding groundwater monitoring, pollutant fate and transport, and corrective action.

5. Reporting Requirements - The permittee shall report annually on the DMR the following information:

- a. Report No for no liner and leachate collection system at surface disposal site.
- b. The frequency of monitoring listed in Element II, Section I.D. which applies to the permittee.
- c. Toxicity Characteristic Leaching Procedure (TCLP) results (Pass/Fail).
- d. The concentration (mg/Kg) in the sludge of each pollutant listed in Table 5 as well as the applicable pollutant concentration criteria listed in Table 5.
- e. The concentration (mg/Kg) of PCB's in the sludge.
- f. The distance between the property line and the surface disposal site boundary.

- g. Level of pathogen reduction achieved (Class A or Class B), unless Vector attraction reduction alternative no. 11 is utilized.
- h. List Alternative used as listed in Section I.C.3.(a. or b.). Alternatives describe how the pathogen reduction requirements are met.
- i. Vector attraction reduction Alternative used as listed in Section I.C.4.
- j. Annual sludge production in dry metric tons/year.
- k. Amount of sludge surface disposed in dry metric tons/year.
- l. Amount of sludge transported interstate in dry metric tons/year.
- m. A narrative description explaining how the management practices in §503.24 are met shall be attached to the DMR.
- n. The certification statement listed in 503.27(a)(1)(ii) or 503.27(a)(2)(ii) as applicable to the permittees sludge disposal activities, shall be attached to the DMR.

SECTION III. REQUIREMENTS SPECIFIC TO SURFACE DISPOSAL SITES WITH A LINER AND LEACHATE COLLECTION SYSTEM.

- 1. Pollutant limits - None.
- 2. Management Practices - Listed in Section I.B. above.
- 3. Notification requirements -
 - a. The permittee shall assure that the owner of the surface disposal site provide written notification to the subsequent owner of the site that sewage sludge was placed on the land.
 - b. The permittee shall provide the location of all new sludge disposal/use sites where previously undisturbed ground is proposed for disturbance to the State Historical Commission within 90 days of the effective date of this permit. In addition, the permittee shall provide the location of any new disposal/use site to the State Historical Commission prior to use of the site.

The permittee shall within 30 days after notification by the State Historical Commission that a specific sludge disposal/use area will adversely affect a National Historic Site, cease use of such area.
- 4. Recordkeeping requirements - The permittee shall develop the following information and shall retain the information for five years. The sludge documents will be retained on site at the same location as other NPDES records.
 - a. The following certification statement found in 503.27(a)(1)(ii):

"I certify, under penalty of law, that the information that will be used to determine compliance with the pathogen requirements (define option used) and the vector attraction reduction requirements (define option used) have been met. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine the (pathogen requirements and vector attraction reduction requirements, if appropriate) have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment."
 - b. A description of how either the Class A or Class B pathogen reduction requirements are met or

whether sewage sludge placed on a surface disposal site is covered with soil or other material at the end of each operating day.

- c. A description of how the vector attraction reduction requirements are met.
 - d. Results of a ground-water monitoring program developed by a qualified ground-water scientist. A certification by a qualified ground-water scientist may be used to demonstrate that sewage sludge placed on an active sewage sludge unit does not contaminate an aquifer.
5. Reporting Requirements - The permittee shall report annually on the DMR the following information:
- a. Report YES for liner and leachate collection system at surface disposal site.
 - b. The frequency of monitoring listed in Element 2, Section I.D. which applies to the permittee.
 - c. Toxicity Characteristic Leaching Procedure (TCLP) results (Pass/Fail).
 - d. The concentration (mg/Kg) in the sludge of PCBs.
 - e. Level of pathogen reduction achieved (Class A or Class B), unless Vector attraction reduction alternative no. 11 is used.
 - f. List Alternative used as listed in Section I.C.3.(a. or b.). Alternatives describe how the pathogen reduction requirements are met.
 - g. Vector attraction reduction Alternative used as listed in Section I.B.4.
 - h. Annual sludge production in dry metric tons/year.
 - i. Amount of sludge surface disposed in dry metric tons/year.
 - j. Amount of sludge transported interstate in dry metric tons/year.
 - k. A narrative description explaining how the management practices in §503.24 are met shall be attached to the DMR.
 - l. A certification statement that all applicable requirements (specifically listed) have been met, and that the permittee understands that there are significant penalties for false certification including fine and imprisonment (See 503.27(a)(1)(ii) or 503.27(a)(2)(ii) whichever applies to the permittees sludge disposal activities) shall be attached to the DMR.

ELEMENT 3 - MUNICIPAL SOLID WASTE LANDFILL DISPOSAL

SECTION I. REQUIREMENTS APPLYING TO ALL SEWAGE SLUDGE DISPOSED IN A MUNICIPAL SOLID WASTE LANDFILL

1. The permittee shall handle and dispose of sewage sludge in accordance with Section 405 of the Clean Water Act and all other applicable Federal regulations to protect public health and the environment from any reasonably anticipated adverse effects due to any toxic pollutants that may be present. The permittee shall ensure that the sewage sludge meets the requirements in 40 CFR 258 concerning the quality of the sludge disposed in the municipal solid waste landfill unit.
2. If requirements for sludge management practices or pollutant criteria become more stringent than the sludge pollutant limits or acceptable management practices in this permit, or control a pollutant not listed in this permit, this permit may be modified or revoked and reissued to conform to the requirements promulgated at

Section 405(d)(2) of the Clean Water Act.

3. If the permittee generates sewage sludge and supplies that sewage sludge to the owner or operator of a MSWLF for disposal, the permittee shall provide to the owner or operator of the MSWLF appropriate information needed to be in compliance with the provisions of this permit.
4. The permittee shall give prior notice to EPA (Chief, Permits Branch, Water Management Division, Mail Code 6W-P, EPA Region 6, 1445 Ross Avenue, Dallas, Texas 75202) of any planned changes in the sewage sludge disposal practice, in accordance with 40 CFR Part 122.41(l)(1)(iii). These changes may justify the application of permit conditions that are different from or absent in the existing permit. Change in the sludge use or disposal practice may be cause for modification of the permit in accordance with 40 CFR Part 122.62(a)(1).
5. The permittee shall provide the location of all new sludge disposal/use sites where previously undisturbed ground is proposed for disturbance to the State Historical Commission within 90 days of the effective date of this permit. In addition, the permittee shall provide the location of any new disposal/use site to the State Historical Commission prior to use of the site.

The permittee shall within 30 days after notification by the State Historical Commission that a specific sludge disposal/use area will adversely affect a National Historic Site, cease use of such area.

6. Sewage sludge shall be tested once during the life of the permit within one year from the effective date of the permit in accordance with the method specified at 40 CFR 268, Appendix I (Toxicity Characteristic Leaching Procedure (TCLP)) or other approved methods. Sludge shall be tested after final treatment prior to leaving the POTW site. Sewage sludge determined to be a hazardous waste in accordance with 40 CFR Part 261, shall be handled according to RCRA standards for the disposal of hazardous waste in accordance with 40 CFR Part 262. The disposal of sewage sludge determined to be a hazardous waste, in other than a certified hazardous waste disposal facility shall be prohibited. The Information Management Section, telephone no. (214) 665-6750, and the appropriate state agency shall be notified of test failure within 24 hours. A written report shall be provided to this office within 7 days after failing the TCLP. The report will contain test results, certification that unauthorized disposal has not occurred and a summary of alternative disposal plans that comply with RCRA standards for the disposal of hazardous waste. The report shall be addressed to: Director, Multimedia Planning and Permitting Division, EPA Region 6, Mail Code 6PD, 1445 Ross Avenue, Dallas, Texas 75202. A copy of this report shall be sent to the Chief, Water Enforcement Branch, Compliance Assurance and Enforcement Division, Mail Code 6EN-W, at the same street address.
7. Sewage sludge shall be tested as needed, or at a minimum, once/year in accordance with the method 9095 (Paint Filter Liquids Test) as described in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods" (EPA Pub. No. SW-846).
8. Recordkeeping requirements - The permittee shall develop the following information and shall retain the information for five years.
 - a. The description, including procedures followed, and results of the Paint Filter Tests performed.
 - b. The description, including procedures followed, and results of the TCLP Test.
9. Reporting requirements - The permittee shall report annually on the Discharge Monitoring Report the following information:
 - a. Results of the Toxicity Characteristic Leaching Procedure Test conducted on the sludge to be disposed (Pass/Fail).
 - b. Annual sludge production in dry metric tons/year.
 - c. Amount of sludge disposed in a municipal solid waste landfill in dry metric tons/year.
 - d. Amount of sludge transported interstate in dry metric tons/year.

- e. A certification that sewage sludge meets the requirements in 40 CFR 258 concerning the quality of the sludge disposed in a municipal solid waste landfill unit shall be attached to the DMR.